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# LABOR

VOL. 60

*Review*

## THIS ISSUE

Compensation for Sickness in Rhode Island

Public Employment and Pay Rates in the United States

Problems of Post-War Construction

Wage Variations in Union Agreements

Unemployment in the Southwest

Construction Industry Operations

THE LABOR BUREAU OF LITERATURE

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## *This Issue in Brief*

### *Compensation for sickness in Rhode Island.*

The Rhode Island Cash Sickness Compensation Act went into effect May 10, 1942, and payment of benefits began in April 1943. Benefits (calculated on workers' earnings up to \$1,800 during a base period) range to a maximum of \$364.50, within a period of 21 weeks. The workers covered (260,000 to 285,000) make up some 90 percent of the working population of the State. In the first year of operations, 32,624 claimants (14,239 men and 18,385 women) collected \$3,881,162 in benefits, 55 percent going to women and 79 percent to workers in manufacturing. The program is financed by a 1-percent deduction from workers' wages and is administered by the Rhode Island Unemployment Compensation Board of three members, representing the public, industry, and labor. Data on operations under the act and suggestions for improvement of the system, advanced from various sources, are given in the article on page 225.

### *Public employment and pay rolls in the United States, 1929-39, and post-war implications.*

Public employment of all kinds increased 30 percent and average monthly pay rolls increased 28 percent between 1929 and 1939. Federal and State governments grew much more rapidly than county, city, and other local governments. The latter, however, continued to comprise the greater part of the total—61 percent of employment and 56 percent of pay roll in 1939. While the upward trend in State and local activity was evident in all parts of the country, the sharpest growth occurred in the Southern and Pacific States. The general rising trend evident over the period will probably be resumed in the post-war years. Although present Federal operations will necessarily decrease as war needs disappear, they are unlikely to drop to 1939 levels. On the other hand, State and local government operations may be expected to expand as labor and materials become available. Page 243.

### *Probable volume of post-war construction.*

An average construction volume of almost 11 billion dollars annually in terms of 1940 building costs, is expected during the 5 years following defeat of Japan, if certain assumed conditions are met. The volume will probably be somewhat under 8 billion dollars during the first year, and about 12 billion dollars during the fourth and fifth years. Almost three-fourths of this will be privately financed and about half of the private work will consist of residential building—principally detached houses built for sale. An average volume of 900,000 new dwelling units per year is expected, 850,000 of which will be privately financed. Commercial building seems likely to approach its pre-depression scale, but will consist less of new construction than of modernization and alterations. The largest element of public construction will be highways, roads, and streets, including related work such as bridges and grade separations. Page 261.

### *Employment opportunities for Diesel-engine mechanics.*

The post-war demand for mechanics to service Diesel engines can be adequately supplied from the relatively large number of experienced engine mechanics who will be available. As a result, the value of Diesel training for persons without mechanical experience is definitely limited, even though the utilization of Diesel engines is likely to increase. These are the conclusions reached in an analysis of the post-war labor market for Diesel mechanics. Factors affecting the employment opportunities for Diesel mechanics are described in the article on page 276.



***Paid-vacation provisions in union agreements, November 1944.***

About 85 percent (11½ million) of all workers under union agreement are covered by paid-vacation clauses. For manufacturing and nonmanufacturing industries the proportion is 90 and 75 percent, respectively. In manufacturing industries the majority (56 percent) of the workers under paid-vacation clauses are eligible for 2 weeks' vacation after specified service requirements, although about a third of the workers are eligible for a maximum of only 1 week's vacation. The most common type of vacation plan is that providing 1 week's vacation after 1 year of service and 2 weeks after 5 years. Vacation pay is most often based on a 40-hour workweek. Page 299.

***Industrial injuries to women workers.***

The greatly increased employment of women since the beginning of the war has been accompanied by a sharp rise in industrial accidents involving them. Available data, however, indicate that in general women work as safely as men or even more safely. Their employment, furthermore, entails no great problem from the safety point of view. Page 311.

***Eleventh National Conference on Labor Legislation.***

The Eleventh National Conference on Labor Legislation was held in Washington on December 12, 13, and 14. At this conference delegates from 36 States, Alaska, and the District of Columbia considered State labor problems and recommended the adoption by States of legislation which would assist in orderly reconversion to peacetime production after the war. Specific recommendations were made concerning (1) strengthening of State labor departments, (2) migratory labor, (3) safety and health and workmen's compensation, (4) wages, hours, and industrial homework, (5) industrial relations, and (6) child labor and youth employment. Page 330.

***Wages in petroleum drilling and production in the Southwest, April 1944.***

Male workers employed by companies engaged in oil-well drilling and crude-petroleum production were earning an average of \$1.07 per hour in April 1944, or 5 cents an hour above the average of 1943. Ten percent of the men had average hourly earnings of \$1.25 or more. Page 345.

***Union wage rates of city streetcar and bus operators, July 1, 1944.***

Union wage rates of streetcar and bus operators averaged 92.3 cents per hour in 69 cities on July 1, 1944—an increase of eight-tenths of 1 percent over July 1, 1943. About two-thirds of the union members were covered by agreements limiting straight-time daily or weekly hours. The usual overtime rate was time and a half. All the union operators had annual paid vacations, usually of 1 or 2 weeks, with varying service requirements. Page 369.

***Trends in urban wage rates, April-October 1944.***

Between April and October 1944, wage rates of urban factory workers rose 2.2 percent; those of urban workers in nonmanufacturing industries increased 4.1 percent. As compared with April 1943 these rates increased 8.1 and 13.8 percent, respectively. Page 379.

***Trend of prices in 1944.***

Prices rose less in 1944 than in any year since the war began. The cost of living rose 2 percent and wholesale prices 1½ percent. This relative stability was especially remarkable in view of the intense economic pressures growing directly out of the war effort. Although the Nation in general was well fed and well clothed, many items of textiles, foods, and other consumer goods were scarce. The accelerated war production program also intensified the scarcity of several basic materials at the end of the year. An analysis of the demand and supply situation and a discussion of the course of prices in 1944 is given in the article on page 389.



## CURRENT LABOR STATISTICS

V

Current Statistics of Labor Interest in Selected Periods <sup>1</sup>

[Available in reprint form]

Item	Unit	1944			1943: Decem- ber	1939: Aver- age for year
		Decem- ber	Novem- ber	Octo- ber		
<i>Employment</i>						
Civilian labor force: Total (BC).....	Thousands..	51,250	52,210	52,870	51,900	<sup>2</sup> 54,230
Male.....	Thousands..	33,720	34,060	34,410	34,780	<sup>2</sup> 40,950
Female.....	Thousands..	17,530	18,150	18,460	17,120	<sup>2</sup> 13,280
Employed <sup>3</sup> .....	Thousands..	50,570	51,530	52,240	51,010	<sup>2</sup> 46,930
Male.....	Thousands..	33,320	33,710	34,100	34,220	<sup>2</sup> 35,600
Female.....	Thousands..	17,250	17,820	18,140	16,790	<sup>2</sup> 11,330
Nonagricultural.....	Thousands..	43,480	43,390	43,490	44,190	<sup>2</sup> 37,430
Agricultural.....	Thousands..	7,090	8,140	8,750	6,820	<sup>2</sup> 9,500
Unemployed, total.....	Thousands..	680	680	630	890	<sup>2</sup> 7,300
Civilian employment in nonagricultural estab- lishments: Total <sup>3</sup> .....	Thousands..	38,901	38,352	38,364	40,197	30,353
Manufacturing.....	Thousands..	15,653	15,602	15,698	17,080	10,078
Mining.....	Thousands..	806	812	816	867	845
Construction <sup>4</sup> .....	Thousands..	604	635	652	829	1,753
Transportation and public utilities.....	Thousands..	3,772	3,772	3,767	3,669	2,912
Trade.....	Thousands..	7,657	7,295	7,146	7,554	6,618
Finance, service, and miscellaneous.....	Thousands..	4,292	4,323	4,340	4,127	4,160
Federal, State, and local government, ex- cluding Federal force-account construc- tion.....	Thousands..	6,117	5,913	5,945	6,071	3,988
Military personnel.....	Thousands..	-----	12,000	11,900	<sup>6</sup> 10,200	362
Wage-earner employment:						
Manufacturing.....	Thousands..	12,638	12,573	12,656	13,878	8,192
Bituminous-coal mining.....	Thousands..	336	340	342	373	371
Class I steam railroads, including salaried employees (ICC).....	Thousands..	1,400	1,409	1,410	1,350	988
Hired farm workers (BAE).....	Thousands..	2,048	2,522	2,911	2,250	<sup>2</sup> 2,248
<i>Hours of labor</i>						
Average hours per week of wage earners:						
Manufacturing.....	Hours.....	-----	45.3	45.5	<sup>6</sup> 45.5	37.7
Bituminous-coal mining.....	Hours.....	-----	42.8	44.1	<sup>6</sup> 28.4	27.1
Retail trade.....	Hours.....	-----	39.4	40.4	<sup>6</sup> 39.6	43.0
Building construction (private).....	Hours.....	39.4	39.7	40.7	38.1	32.4
<i>Weekly earnings</i>						
Average weekly earnings of wage earners:						
Manufacturing.....	-----	-----	\$46.80	\$46.94	<sup>6</sup> \$45.32	\$23.86
Bituminous-coal mining.....	-----	-----	\$49.68	\$52.34	<sup>6</sup> \$32.40	\$23.88
Retail trade.....	-----	-----	\$26.20	\$26.94	<sup>6</sup> \$24.70	\$21.17
Building construction (private).....	-----	\$53.40	\$53.54	\$54.59	\$49.38	\$30.24
<i>Hourly or daily earnings</i>						
Average hourly earnings of wage earners:						
Manufacturing.....	-----	-----	\$1.033	\$1.031	<sup>6</sup> \$0.996	\$0.633
Bituminous-coal mining.....	-----	-----	\$1.164	\$1.191	<sup>6</sup> \$1.144	\$0.886
Retail trade.....	-----	-----	\$0.736	\$0.741	<sup>6</sup> \$0.686	\$0.536
Building construction (private).....	-----	\$1.354	\$1.349	\$1.342	\$1.295	\$0.933
Average straight-time hourly earnings in manufacturing, using—						
Current employment by industry.....	-----	-----	\$0.960	\$0.956	<sup>6</sup> \$0.923	\$0.622
Employment by industry as of January 1939.....	-----	-----	\$0.882	\$0.882	<sup>6</sup> \$0.840	\$0.622
Quarterly farm wage rate, per day without board (BAE).....	-----	<sup>7</sup> \$4.15	-----	\$4.08	<sup>6</sup> \$3.50	<sup>2</sup> \$1.53
<i>Industrial injuries, labor turnover, and absences from work</i>						
Industrial injuries in manufacturing, per million man-hours worked.....	-----	-----	-----	<sup>10</sup> 19.4	<sup>10</sup> 20.7	15.4
Labor turnover in manufacturing:						
Total separations, per 100 employees.....	-----	-----	6.0	6.4	<sup>6</sup> 6.4	(11)
Quits, per 100 employees.....	-----	-----	4.5	5.0	<sup>6</sup> 4.5	(11)
Lay-offs, per 100 employees.....	-----	-----	0.6	0.5	<sup>6</sup> 0.7	(11)
Total accessions, per 100 employees.....	-----	-----	5.9	6.0	<sup>6</sup> 6.6	(11)
Absence rates (workdays lost as percent of total scheduled):						
Manufacturing, selected industries.....	-----	6.3	6.3	6.2	8.4	(11)
Bituminous-coal mining.....	-----	14.9	12.5	12.4	11.4	(11)

See footnotes at end of table.

Current Statistics of Labor Interest in Selected Periods <sup>1</sup>—Continued

Item	Unit	1944			1943: Decem- ber	1939: Aver- age for year
		Decem- ber	Novem- ber	Octo- ber		
<i>Strikes and lockouts</i> <sup>12</sup>						
Strikes and lockouts beginning in month:						
Number.....		280	375	440	355	218
Number of workers involved.....	Thousands	85	200	220	263	98
All strikes and lockouts during month—man- days idle:						
Number.....	Thousands	380	710	690	787	1,484
Percent of available working time.....		0.05	0.10	0.09	0.11	0.28
<i>Cost of living</i>						
Cost-of-living index (wage earners in large cities):						
All items <sup>13</sup> .....	1935-39=100	127.0	126.6	126.5	124.4	99.4
Food.....	1935-39=100	137.4	136.5	136.4	137.1	95.2
Clothing.....	1935-39=100	142.8	142.1	141.9	134.6	100.5
Rent.....	1935-39=100	108.3			108.1	104.3
Fuel, electricity, and ice.....	1935-39=100	109.4	109.9	109.8	109.4	99.0
Housefurnishings.....	1935-39=100	143.0	141.7	141.4	127.9	101.3
Miscellaneous.....	1935-39=100	123.1	122.9	122.8	118.1	100.7
<i>Retail food prices (large cities)</i>						
Retail price index: All foods.....	1935-39=100	137.4	136.5	136.4	137.1	95.2
Cereals and bakery products.....	1935-39=100	108.6	108.6	108.6	108.4	94.5
Meats.....	1935-39=100	129.9	129.7	129.4	130.9	96.6
Dairy products.....	1935-39=100	133.6	133.6	133.6	133.5	95.9
Eggs.....	1935-39=100	188.5	186.7	179.0	181.0	91.0
Fruits and vegetables.....	1935-39=100	164.2	160.7	162.9	163.7	94.5
Beverages.....	1935-39=100	124.3	124.3	124.3	124.7	95.5
Fats and oils.....	1935-39=100	123.3	123.2	123.1	124.3	87.7
Sugar and sweets.....	1935-39=100	126.2	126.5	126.4	126.7	100.6
<i>Wholesale prices</i>						
Wholesale price index: All commodities.....	1926=100	104.7	104.4	104.1	103.2	77.1
All commodities other than farm products.....	1926=100	100.0	99.9	99.8	99.0	79.5
All commodities other than farm products and foods.....	1926=100	98.9	98.8	98.7	97.6	81.3
Farm products.....	1926=100	125.5	124.4	123.4	121.8	65.3
Foods.....	1926=100	105.5	105.1	104.2	105.6	70.4
<i>National income and expenditures</i>						
National income payments, total (BFDC).....	Millions		\$13,309	\$13,702	\$12,311	\$5,949
Retail sales, total (BFDC).....	Millions		\$6,214	\$6,135	\$5,630	\$3,670
<i>Production</i>						
Industrial production index, unadjusted (FR):						
Total.....	1935-39=100	230	232	234	239	100
Manufacturing.....	1935-39=100	247	248 <sup>14</sup>	250	258	100
Minerals.....	1935-39=100	132	140	145	132	106
Bituminous coal (BM).....	Thousands of short tons	44,735	50,605	51,820	54,130	32,905
Construction expenditures, all types (excluding maintenance, except in farm construction).....	Millions	\$346	<sup>14</sup> \$375	<sup>14</sup> \$400	\$408	<sup>15</sup> \$512
Building construction started in urban areas.....	Millions	\$70	<sup>14</sup> \$90	<sup>14</sup> \$100	\$102	( <sup>11</sup> )
New family-dwelling units in nonfarm areas.....		10,700	11,600	10,900	20,000	<sup>14</sup> 41,200
Carloadings index, unadjusted (FR).....	1935-39=100	128	144	148	133	101

<sup>1</sup> Source: Bureau of Labor Statistics unless otherwise indicated. Abbreviations used: BC (Bureau of the Census); ICC (Interstate Commerce Commission); BAE (Bureau of Agricultural Economics); BFDC (Bureau of Foreign and Domestic Commerce); FR (Federal Reserve); BM (Bureau of Mines). Most of the current figures are preliminary.

<sup>2</sup> 10-month average—March to December 1940.

<sup>3</sup> Excludes employees on public emergency work, these being included in unemployed civilian labor force. Civilian employment in nonagricultural establishments differs from employment in civilian labor force mainly because of exclusion of such groups as self-employed and domestic and casual workers.

<sup>4</sup> Includes workers employed by construction contractors and Federal force-account workers (nonmain-tenance construction workers employed directly by the Federal Government). Other force-account nonmaintenance construction employment is included under manufacturing and the other groups.

<sup>5</sup> December.

<sup>6</sup> November.

<sup>7</sup> January 1945.

<sup>8</sup> January 1944.

<sup>9</sup> January.

<sup>10</sup> Cumulative frequency rate, January to September.

<sup>11</sup> Not available.

<sup>12</sup> The same series as those formerly published in this table as "Strikes."

<sup>13</sup> For the coverage of this index, see text, p. 401.

<sup>14</sup> Corrected figure. Corrected September figure, \$412.

<sup>15</sup> Corrected figure. Corrected September figure, \$81.

# MONTHLY LABOR REVIEW

FEBRUARY 1945

## Compensation for Sickness in Rhode Island<sup>1</sup>

### Summary

THE Rhode Island law providing for cash benefits to workers unable to perform their duties, because of illness, was passed in the spring of 1942 and became effective on May 10 of that year. The payment of benefits began in April of the following year. From 260,000 to 285,000 workers are covered by the plan, or about 90 percent of the working population of the State. The plan is administered by the Unemployment Compensation Board of Rhode Island.

The system is financed entirely by the proceeds of a 1-percent tax deducted from workers' wages. Benefits are payable for not to exceed 21 weeks in any year. They are based upon the worker's earnings during a period immediately preceding the year in which payments are claimed, and may range from \$34 in 1 year, based on earnings of \$100, to \$364.50, based on earnings of \$1,800 or more.

During the first year of operations (April 1, 1943–March 31, 1944) \$3,881,162 was paid out in benefits to 32,624 claimants, 45 percent of this sum going to 14,239 males and 55 percent to 18,385 females. Workers in manufacturing industries received 79 percent of the total sum and workers in textile mills alone received 42 percent of the total. More than half of the female claimants were 34 years old or under, about half of the male claimants 48 years old or under. Ninety-six percent of all claimants were residents of Rhode Island.

Between the date of the act's effectiveness (May 10, 1942) and the end of October 1944, wage deductions and interest thereon had provided a fund of \$10,213,128. Net benefit payments totaled \$3,774,310 during the first year of operations. This expenditure together with administrative and other expenses reduced the balance in the fund to \$3,510,177 when the second year opened in April 1944. Partially because of relaxations in requirements (under amendments to the act), expenditures increased in relation to income and in the 7 months ending in October 1944 exceeded income by over \$600,000 and the balance was reduced to \$2,758,685.

The meagerness of this amount and experience in administering the act has caused the Board to request reforms to eliminate double-benefit payments (such as both sickness benefits and workmen's compensation for industrial accidents), to narrow the definition of sickness, and in general to tighten up the act. Experience with the program has also caused the covered employees to resort to its bene-

<sup>1</sup> Prepared in the Bureau's Editorial and Research Division by Helen I. Cowan.



fits more and more and to work for amendments to broaden its coverage. Auditors have twice recommended reforms designed to preserve the solvency of the fund. The future of the experiment thus appears to rest upon the ability of the two groups to arrive at a compromise workable for themselves and the act.

When the General Assembly of Rhode Island passed the Cash Sickness Compensation Act, discussion of similar action was under way in some 10 other States. In the autumn of 1944, two and a half years later, when the Board administering the system released a report on its first year's operations, Rhode Island was still the only State in the Union with such a system. Although further State legislation has been lacking, proposals for much-widened coverage of the Federal social security system, embodying also the inclusion of benefits for sickness, make the experience under the Rhode Island law of especial interest at this time. For this reason the Bureau of Labor Statistics here presents data on operations during the law's life of nearly 2 years, obtained from the records of the Rhode Island Unemployment Compensation Board.

### *The Cash Sickness Compensation Act and Its Provisions*

The first compulsory State sickness-insurance law in the United States was enacted by the Government of Rhode Island and Providence Plantations in the spring of 1942. At that time, the State Unemployment Compensation Act was 6 years old, employment in the State was at a high level, and the reserves in the unemployment-compensation fund (which exceeded \$55,000,000 by 1944) were growing. This fund was being fed from employer and employee contributions, the latter at the rate of 1½ percent on wages up to \$3,000. Public discussion regarding the advisability of eliminating the employees' contribution offered an opportunity for diverting part of the workers' contributions and for providing two insurance programs for the cost of one. A cash sickness-compensation measure was accordingly introduced in the State Senate on March 18, 1942, was passed on April 23, and was signed by the Governor on April 29, 1942. The act went into effect on May 10.

The act established a close relationship between the State unemployment and cash-sickness compensation systems. Both had the same coverage, i. e., workers in establishments employing 4 or more persons in each of 20 different weeks in a calendar year, and both excepted workers in agriculture, domestic, State, and Federal service, and in certain charitable and educational institutions. Both acts stipulated the same fiscal year, the same benefit rate, and the same employment requirement for benefit eligibility. The Unemployment Compensation Board was given the added duty of administering the sickness-compensation system. This board consists of three members, one each representing the public, industry, and labor, appointed by the Governor (with Senate approval) for 6-year terms, no more than two of whom may be of the same political party.

Two basic features of the sickness-compensation act were very soon changed by amendment. Originally, benefits were defined as "compensation for \* \* \* wage losses" resulting from "unemployment caused by sickness." An amendment of April 28, 1943 (28 days after benefit payments began) eliminated the "wage loss" principle and



permitted the worker to collect sickness compensation while drawing other payments (such as wages or salaries paid by the employer during sickness). At the same time, the definition of "sickness" was changed. Under the original definition, in order to receive benefit a worker had to show that he was "unable to perform any services for wages"; this condition was relaxed to permit payments to a worker "when such sickness prevents him from being able to perform his regular services."

#### CONTRIBUTIONS

Funds for the sickness benefits were obtained by deflecting from the unemployment-compensation fund 1 percent from the 1½-percent tax on workers' wages up to \$3,000 in any calendar year; in other words, the sickness-compensation program is financed from workers' contributions alone.

#### BENEFITS PROVIDED

*Rate of benefit.*—The amount of benefit payments or credits which an eligible worker may obtain depends on the amount of wages earned during a 12-month base period immediately preceding the benefit year in which payments are claimed. The smallest total benefit payment in 1 year is \$34.00 on aggregate wages of \$100.00 and the largest is \$364.50 on wages of \$1,800.00 or more. Total benefit credits are scaled on base-period earnings, and increase with each rise of \$25.00 in such earnings. For reasons of economy of space the scales given in the law are combined, in table 1, into \$100.00 rises.

TABLE 1.—*Wages, Benefit Credits, and Benefit Rates Under Rhode Island Cash Sickness Compensation Act*

Total wages earned in base period	Total benefit credits	Highest wages earned in quarter	Weekly benefit rate
\$100.00-\$199.99	\$34.00-\$45.25	\$25.00-\$54.99	\$6.75
\$200.00-\$299.99	\$48.75-\$64.75	\$55.00-\$84.99	7.00
\$300.00-\$399.99	\$70.25-\$87.25	\$85.00-\$104.99	7.25
\$400.00-\$499.99	\$90.50-\$104.25	\$105.00-\$114.99	7.50
\$500.00-\$599.99	\$109.75-\$121.00	\$115.00-\$124.99	7.75
\$600.00-\$699.99	\$124.00-\$139.25	\$125.00-\$134.99	8.00
\$700.00-\$799.99	\$144.25-\$159.50	\$135.00-\$144.99	8.25
\$800.00-\$899.99	\$164.50-\$179.75	\$145.00-\$154.99	8.50
\$900.00-\$999.99	\$184.75-\$200.00	\$155.00-\$164.99	8.75
\$1,000.00-\$1,099.99	\$205.00-\$220.25	\$165.00-\$174.99	9.00
\$1,100.00-\$1,199.99	\$225.25-\$240.50	\$175.00-\$184.99	9.50
\$1,200.00-\$1,299.99	\$245.50-\$260.75	\$185.00-\$194.99	10.00
\$1,300.00-\$1,399.99	\$265.75-\$281.00	\$195.00-\$204.99	10.50
\$1,400.00-\$1,499.99	\$286.00-\$301.25	\$205.00-\$214.99	11.00
\$1,500.00-\$1,599.99	\$306.25-\$321.50	\$215.00-\$224.99	11.50
\$1,600.00-\$1,699.99	\$326.50-\$341.75	\$225.00-\$234.99	12.00
\$1,700.00-\$1,799.99	\$346.75-\$362.00	\$235.00-\$244.99	12.50
\$1,800.00 and over	\$364.50	\$245.00-\$254.99	13.00
		\$255.00-\$264.99	13.50
		\$265.00-\$274.99	14.25
		\$275.00-\$284.99	15.00
		\$285.00-\$294.99	15.75
		\$295.00-\$304.99	16.50
		\$305.00-\$314.99	17.25
		\$315.00 and over	18.00

Normally, benefit is paid weekly at a rate determined by the highest wages earned in one quarter of the base period of 1 year. The rate, of \$6.75, for example, is paid if the highest quarterly wages were between \$25.00 and \$54.99. No eligible individual may receive more

than \$364.50 in total payments nor benefits for more than 21 weeks in any one year, under the scales established.

*Procedure for obtaining benefits.*—Claims for benefit payments are made on forms obtainable from the U. S. Employment Service and other designated offices in Rhode Island. Statements describing the worker, his employment, and illness must be filled in by the worker and his physician and mailed to the Unemployment Compensation Board within 3 days from the date of the statements. These claim forms are inspected by a claims examiner who determines their validity and notifies the applicant. Appeals against such decisions may be made within 7 days.

The act provides for a waiting period of 1 week before payments may begin. The Board has interpreted "week" as meaning a calendar week. If the illness lasts beyond the first week of benefit, the beneficiary and his physician must file at designated intervals an additional statement on forms supplied by mail by the Board.

The right to require a benefit claimant to submit to "a reasonable examination or examinations for the purpose of determining his physical or mental condition," such examination "to be conducted by an expert or experts," was conferred on the Board by the original act. During the first year of operations the Board began the practice of calling in for examination, by general medical practitioners appointed by the Board, certain claimants whose application forms had been questioned by the examiner. In the first 8 months of the second year of operations, 12,599 applicants were examined, an average of 1,575 monthly. Detailed data on results of examination are not available, but it was reported that 30 percent of all applicants for benefits who were requested to appear for examination by Board doctors failed to appear, and 40 to 50 percent of the 70 percent who appeared and were examined were refused further benefit payments.

### *Workers Covered by the Act*

The State of Rhode Island is geographically compact and highly industrialized. Ninety-two percent of its population of 713,346 was listed as urban in the census of 1940; the population of Providence was 253,504 and that of the entire metropolitan district of Providence (including 22,071 persons in Massachusetts) was 711,500. Both industrial management and labor force are experienced and well organized. It is estimated that as many as a third of all workers covered by the act are members of labor organizations.

By the spring of 1943, when benefit payments began, the textile, iron and steel, transportation-equipment, and several other manufacturing industries were at their peak of expansion under war contracts.

As already noted, the act applies to all workers in establishments employing 4 or more persons, excepting those in agricultural, domestic, and Governmental services and employees of charitable and educational institutions. Employers make quarterly reports of employment, showing the number of workers employed as of the fifteenth of each month. The actual number of workers covered by the system would be considerably larger, as the employers' reports would not include workers who were shifting to other employment or who for other reasons were not on any pay roll as of the reporting date. One estimate places the number of workers covered by the system in the year

1943-44 at from 260,000 to 285,000. From 1940 to July 1943, the Rhode Island population increased by 5.2 percent, to a total of 750,688. Though the cash sickness-insurance system covers only workers themselves and not families, as in some countries, more than one-third of the total population and possibly some 90 percent of the working population of the State have a stake in the program.

The number of workers reported as covered is indicated by industry groups in table 2 for April 1943 and March 1944, the first and last months of the first year of operations under the Cash Sickness Compensation Act, and for the months of lowest and highest coverage during the year ending in March 1944.

TABLE 2.—*Reported Employment under Rhode Island Cash Sickness Compensation Act in April 1943, March 1944, and Months of Lowest and Highest Coverage in 1943-44*

Industry	Number of employees reported on 15th of—		Range of reported employment, April 1943–March 1944			
	April 1943	March 1944	Low		High	
			Month	Workers	Month	Workers
Total, all industries.....	253, 983	231, 748	Mar. 1944	231, 748	Apr. 1943	253, 983
Agricultural services, forestry, and fishing.....	325	253	Mar. 1944	253	Sept. 1943	375
Mining.....	193	121	Mar. 1944	121	Apr. 1943	193
Construction, contract.....	18, 338	8, 323	Dec. 1943	7, 417	Apr. 1943	18, 338
Manufacturing.....	169, 017	159, 682	Sept. 1943	157, 814	Apr. 1943	169, 017
Textile-mill products.....	66, 069	59, 231	Jan. 1944	59, 076	Apr. 1943	66, 069
Rubber products.....	3, 840	4, 812	June 1943	3, 626	Jan. 1944	4, 833
Iron and steel products.....	11, 713	10, 923	July 1943	10, 572	Nov. 1943	12, 036
Transportation equipment.....	15, 732	22, 194	Apr. 1943	15, 732	Mar. 1944	22, 194
Nonferrous metals (jewelry, etc.).....	6, 836	6, 015	Dec. 1943	5, 925	Aug. 1943	7, 849
Machinery (except electrical).....	19, 907	16, 088	Dec. 1943	13, 204	Apr. 1943	19, 907
Miscellaneous manufactures.....	10, 707	9, 063	Jan. 1944	9, 056	July 1943	11, 064
Other.....	34, 213	31, 356	Sept. 1943	26, 377	June 1943	35, 023
Transportation, communications, and utilities.....	11, 610	11, 106	Jan. 1944	11, 015	Apr. 1943	11, 610
Wholesale and retail trade.....	36, 411	34, 633	July 1943	33, 776	Dec. 1943	37, 551
Finance, insurance, and real estate.....	6, 720	6, 690	Nov. 1943	6, 621	July 1943	6, 829
Service industries.....	11, 369	10, 938	July 1943	10, 322	May 1943	11, 523
Establishments, not elsewhere classified.....		2				

By far the largest part (66.5 percent) of the 253,983 workers reported and shown above as covered in April 1943 were in manufacturing. Of these factory workers, about two-fifths were in textile mills, about a ninth were in machine plants (except electrical machinery), and about an eleventh were employed in the manufacture of transportation equipment (boats, etc.). The second largest group (14.3 percent of all) was in wholesale and retail trade, and the third largest group (7.2 percent) was in construction.

In March 1944, at the end of the first year of operation under the Cash Sickness Compensation Act, employers reported only 231,748 workers employed, a decrease of 8.8 percent during the year. Five of the 15 groups listed in table 2 had reached their peak of employment in April 1943. Eight others had reached their peak between May and December 1943 and only two (rubber products and transportation equipment) showed greater employment in 1944 than in 1943.

The monthly report on employment, pay rolls, and average earnings in manufactures issued by the Rhode Island Department of Labor for March 1944 indicates the same trend, showing a decline of 9.9 percent



in employment in the same year. The report of October 1944, given in table 3, shows a greater decline in total employment and pay rolls, but a rise in average earnings in the year since October 1943.

TABLE 3.—*Employment, Pay Roll, and Average Earnings in Manufacturing in Rhode Island in October 1944, and Percent of Change from September 1944 and October 1943*<sup>1</sup>

Industry	Number of companies reporting	Employment in October 1944			Pay roll, October 1944			Average earnings in October 1944		
		Number	Percent of change compared with—		Amount	Percent of change compared with—		Amount	Percent of change compared with—	
			Sep-tem-ber 1944	Octo-ber 1943		Sep-tem-ber 1944	Octo-ber 1943		Sep-tem-ber 1944	Octo-ber 1943
Total manufactures.....	288	75,646	+0.1	-11.3	\$3,016,626	+2.5	-7.4	\$39.88	+2.3	+4.5
Jewelry.....	27	4,395	+2.1	-5.3	144,797	-2.1	-9.0	32.95	-4.1	-3.9
Metal trades.....	36	17,143	-1.4	-18.6	860,687	+3.5	-15.5	50.21	+5.0	+3.8
All textiles.....	143	36,976	+7	-12.0	1,310,953	+4.0	-6.4	35.45	+3.4	+6.4
Cotton.....	50	13,443	+1.3	-11.5	464,088	+4.3	-7.2	34.52	+2.9	+4.9
Silk and rayon.....	13	1,232	+2.4	-24.7	35,664	+4.9	-19.4	28.95	+2.4	+7.1
Woolen.....	20	2,984	+2.2	-5.5	102,573	+3.1	-4.0	34.37	+9	+1.7
Worsted.....	38	12,734	-2	-12.2	442,918	+4.7	-6.1	34.78	+4.8	+7.0
Finishing.....	22	6,583	-1	-12.6	265,710	+2.9	-4.6	40.36	+2.9	+9.2
Rubber goods.....	8	5,803	-1.3	-1.1	219,986	-6	+4.8	37.91	+8	+5.9
Miscellaneous.....	74	11,329	+9	-3.2	480,203	-5	+2.7	42.39	-1.4	+6.1

<sup>1</sup> This survey covers over 75 percent of the total number of wage earners employed in all manufacturing industries in Rhode Island, according to the most recent survey of the U. S. Census of Manufactures.

The ratio of women to men workers has been high in Rhode Island. According to one official State record,<sup>2</sup> about 38 percent of the workers in manufacturing in October 1939 were women; by October 1943 the proportion had risen to about 41 percent.<sup>3</sup> For various industries the proportions were even higher. Thus, in the textile industry the proportion of women in the labor force rose from 46 percent in October 1939 to 51 percent in October 1943. In the manufacture of jewelry, an important industry in Rhode Island, almost half of the 14,410 employed in October 1939 were women; in 1943 about three-fifths of the 10,342 employed were women.

### Operations Under the Act

#### CLAIMANTS AND BENEFITS

When benefit payments began, in April 1943, employment among workers covered by the act was at its height for the year—253,983. In that month, 4,763 persons applied for sick benefit and served the waiting period of 1 week required before payments begin. Except for June 1943, when waiting-period claimants numbered 6,472, the record of that first month was not exceeded until April 1944, when the number rose to 5,178. In both years waiting-period claimants were most numerous in the months of April, May, June, July, and August.

<sup>2</sup> Rhode Island Department of Labor, Industrial Inspection Division.

<sup>3</sup> The ratio of women workers to men workers in the whole United States, as shown by data of the U. S. Bureau of Labor Statistics for October of the same years, was 26 and 32 percent (Bureau's press release LS-45-1334, dated Nov. 9, 1944).



An examination of the figures given in table 4, showing the amount of benefit payments and the checks issued monthly, reveals this preponderance of benefit recipients in the spring and summer. The number of checks issued monthly, however, represents neither the exact number of individual recipients (since the same individual may receive 4 or 5 weekly checks in 1 month) nor the number of full weekly checks (since adjustments must sometimes occur in amounts of payment). The number of checks issued weekly comes somewhat closer to representing the number of individuals benefiting from the sickness-compensation system, because the normal payment is one check per week per person. The range per month of the number of weekly payments is given in column 4 of table 4.

TABLE 4.—*Claimants and Amount of Benefit Payments Under Rhode Island Cash Sickness Compensation Act, by Months, April 1943—November 1944*

Year and month	Workers reported as covered on 15th of month	Claimants serving weekly waiting period in month	Total benefit checks issued in month	Range in number of weekly benefit checks	Beneficiaries exhausting credits in month	Total amount of net benefit payments in month
1943:						
April.....	253,983	4,763	8,307	1,187-2,949	-----	\$120,548
May.....	251,193	3,704	16,631	3,124-5,681	172	265,233
June.....	247,225	6,472	28,282	5,567-6,351	904	450,566
July.....	240,338	4,219	22,388	4,958-5,390	1,269	354,222
August.....	238,177	3,308	25,140	5,369-5,977	1,183	403,310
September.....	233,658	2,918	22,319	4,849-5,197	1,260	357,447
October.....	239,568	2,748	18,520	4,519-4,593	914	298,212
November.....	237,990	2,987	19,405	4,180-4,459	909	313,408
December.....	231,901	2,819	18,201	3,850-4,219	911	294,222
1944:						
January.....	233,173	3,422	17,660	4,069-4,252	745	288,083
February.....	232,022	2,876	18,836	4,324-4,564	822	304,062
March.....	231,748	2,964	20,248	4,441-4,538	944	324,997
April.....	(1)	5,178	20,853	4,127-6,665	253	347,470
May.....	(1)	5,109	35,955	7,629-8,448	522	598,691
June.....	(1)	4,077	37,954	8,000-8,699	1,455	629,753
July.....	(1)	3,953	31,495	7,317-7,730	1,672	521,234
August.....	(1)	4,158	31,852	6,760-6,987	1,846	526,306
September.....	(1)	3,070	24,696	5,682-6,112	(1)	408,754
October.....	(1)	3,383	24,768	5,491-5,612	(1)	409,688
November.....	(1)	2,908	(1)	5,060-5,951	(1)	(1)

<sup>1</sup> Data not available.

Except in the month in which benefits began (April 1943), the smallest number of claimants receiving checks per week during the year April 1943-March 1944, was 3,124, with benefit payments amounting to \$49,979; the largest number was 6,351, with payments of \$101,222. In the second year of operations up to November 1944, the smallest number of claimants receiving checks per week was 4,127, with payments of \$66,350 and the largest number was 8,699 with payments of \$144,143.

In 1944 as in 1943, more checks were issued and more money paid in benefits in June than in any other month. In the first year August ranked second for number of checks and size of payments, in the second year May ranked second. All-time highs for both checks and payments were recorded in May and June 1944—checks totaling 35,955 and 37,954, respectively, and payments \$598,691 and \$629,753, respectively.

Explanations for this weight of claims in spring and summer include the "let-down feeling" that follows winter weather, the desire for a

vacation rest, and the fact that credits for benefits earned in the preceding year (on the scale presented in table 1) fall due at the opening of the new benefit year in April. This last explanation is supported by an examination of the figures shown for individuals exhausting credits. Thus, the number of claimants exhausting their benefit credits monthly rose from 172 in May 1943 to 1,269 in July 1943, and in 1944 they rose from 522 in May to 1,846 in August. As credits expired, the totals of benefit checks and payments dropped.

Another factor contributing to the decline may have been the policy of medical examination by doctors employed by the Board under powers granted in the act. Figures for examinations in the first year of operations are not available, for the medical system instituted by the Board developed gradually during that year. During the second year, Board doctors examined 905 persons claiming or receiving benefits in May and 1,638, 2,315, and 1,760 in June, July, and August, respectively. Checks issued dropped by 6,459 in July and did not rise in August as they had in the same month of 1943.

Throughout the first 7 months of the second year of operations, the number of waiting-period claimants (except for June and July) and checks issued, as well as the amount of payments made, exceeded corresponding figures for the first year. The excess of claimants was 796 (2.8 percent), of checks issued 65,986 (46.6 percent), and of payments \$1,192,358 (53.0 percent). For the first 7 months of the second year, the number of waiting-period claimants was 28,928, or only 14,272 less than the total for the entire first year of operations and the amount of benefit payments was \$3,441,896 or \$332,415 less than the total for the first year.

Though this growth in the use of the State system of sickness compensation was natural, it has raised questions regarding the type of sickness for which the State-administered fund and the 1-percent employee contribution can assume liability.

#### DURATION OF BENEFITS

Benefit payments may continue for any period ranging from 1 to 21 weeks, depending upon the claimant's credits. If it is assumed that from 260,000 to 285,000 workers were covered by the act, then more than 1 in every 8 covered workers received cash benefits in the first year of the system's operations (table 5). The average length of such payments for the 32,624 recipients was about 7 weeks; for the 14,239 men the average was about 6 weeks, and for the 18,385 women about 7 weeks. Since the first week of illness constitutes an unpaid waiting period, these averages should be raised by 1 week in order to indicate the average length of illness in cases for which benefits were paid.

In analyzing length of illness in this fashion, it should be remembered that a claimant's benefit credits may expire before (or after) his illness ends, and the Board has no record as to the actual end of the illness. Approximately 40 percent of the women and 20 percent of the men exhausted all their credits. Only 717 beneficiaries (665 men and 52 women) had earnings sufficient to build up credits for the maximum period of 21 weeks. For 10 percent of the persons who exhausted their credits and for 3 percent of all claimants, the credits expired at the end of 5 weeks; and at the end of 10 weeks, the re-

spective percentages were 43 and 13. More than half of the 7,289 women who exhausted their credits in the first year of operations of the act did so within 11 weeks, whereas half of the 2,834 men had credits which lasted into the thirteenth week of their illness.

TABLE 5.—*Claims Paid and Total and Average Benefit Payments, Under Cash Sickness Compensation Act, April 1943–March 1944, by Benefit Period and Sex*

Duration of benefits	Number of claimants			Number of claimants exhausting credits			Amount of payments			Average payment		
	Total	Male	Female	Total	Male	Female	Total	To males	To females	Total	To males	To females
Total.....	32,624	14,239	18,385	10,123	2,834	7,289	\$3,881,162	\$1,744,743	\$2,136,419	\$119	\$123	\$116
1 week.....	2,437	1,621	816				40,379	28,005	12,374	17	17	15
2 weeks.....	2,812	1,524	1,288				91,173	52,570	38,603	32	34	30
3 weeks.....	2,498	1,328	1,170	2	2		122,935	69,319	53,616	49	52	46
4 weeks.....	3,383	1,393	1,990	39	18	21	218,235	96,609	121,626	65	69	61
5 weeks.....	2,741	1,168	1,573	977	271	706	195,053	92,743	102,310	71	79	65
6 weeks.....	2,868	1,125	1,743	697	180	517	262,122	113,024	149,098	91	100	86
7 weeks.....	2,056	840	1,216	609	205	404	223,244	99,086	124,158	109	118	102
8 weeks.....	2,153	804	1,349	626	136	490	270,149	110,089	160,060	125	137	119
9 weeks.....	1,706	604	1,102	667	144	523	241,466	93,717	147,749	142	155	134
10 weeks.....	1,647	591	1,056	687	152	535	260,703	102,350	158,353	158	173	150
11 weeks.....	1,363	416	947	688	115	573	235,254	79,659	155,595	173	191	164
12 weeks.....	1,351	417	934	765	120	645	260,586	87,676	172,910	193	210	185
13 weeks.....	1,248	336	912	836	104	732	259,700	75,922	183,778	208	226	202
14 weeks.....	1,398	336	1,062	1,147	172	975	312,176	80,702	231,474	223	240	218
15 weeks.....	803	249	554	623	119	504	190,909	64,466	126,443	238	259	228
16 weeks.....	518	231	287	372	115	257	141,464	64,701	76,763	273	280	267
17 weeks.....	332	187	145	210	82	128	98,571	56,159	42,412	297	300	292
18 weeks.....	254	149	105	187	93	94	79,093	47,133	31,960	311	316	304
19 weeks.....	190	137	53	130	85	45	63,585	46,052	17,533	335	336	331
20 weeks.....	149	118	31	84	56	28	52,492	41,650	10,842	352	353	350
21 weeks.....	717	665	52	717	665	52	261,873	243,111	18,762	365	365	361

The average benefit payment for the 32,624 claimants was \$119—for the men \$123 and for the women \$116. Though women constituted 56.4 percent of all claimants and received 55.0 percent of all benefit payments, their average benefit was necessarily less than that of the men because their benefit rate, being calculated on earnings, was lower.

The largest group of claimants (10.4 percent of all), consisting of 1,393 men and 1,990 women, received payments for 4 weeks. The second largest group (8.8 percent)—1,125 men and 1,743 women—received payments for 6 weeks. The third largest group (8.6 percent)—1,524 men and 1,288 women—received payment for only 2 weeks.

Total payments were greatest, however, in the case of the group receiving benefits for 14 weeks; the 1,398 claimants in this group received \$312,176. About three-fourths of these recipients were women. The average payment for the men in the group was \$240, for the women \$218. In the next largest payment group, that for 8 weeks, the proportion of women was about 63 percent and the average payments were \$137 and \$119, respectively. In the third payment group, consisting of 2,868 persons who received \$262,122 in 6 weeks, the proportion of men rose to almost 40 percent. The fourth largest payment went to the 717 serious or chronic cases (665 males and 52 females) who drew benefits for the maximum period of 21 weeks.



## AGE OF BENEFIT RECIPIENTS

Workers who received benefits from the Rhode Island sickness-compensation program in the year ending on March 31, 1944, ranged in age from 15 to 89 years (table 6). One girl of 15 collected \$165 in 11 payments and 3 men aged 87, 88, and 89 years collected \$169, \$36, and \$90, respectively, in periods of 14, 2, and 5 weeks. The largest amount collected by any age group was \$77,487, paid to 598 women 25 years of age; the largest amount collected by any male group (\$49,972) went to 353 men 57 years of age. The largest group of any one age recorded was made up of 635 women 21 years old; the largest male group consisted of 376 men 48 years old.

Slightly more than half of all male claimants were 48 years of age or under, whereas about half of the female claimants were 34 years or less. Beginning with a high of 635 at 21 years of age, the numbers of women receiving benefits dropped from 314 to 230 between the ages of 50 and 53 and continued to fall, reaching 108 at 60 years of age, 15, at 70, and 1 at 79. The number of men working at any one age, who collected benefit, did not drop to approximately 108 until 71 years of age, and there were 11 in the 80-year group. Twelve women 75 years of age and over collected benefits, whereas 157 men of that age received benefits.

The preponderance of women in the lower age groups may or may not reflect the ages of women employed in Rhode Island. No age record is available for the whole labor force, but the report is prevalent that the State has many "older women" working. If that be true, it is possible that the excess of women claimants in the lower age groups results mainly from pregnancy cases which numbered some 4,000; the high rate of such cases is a wartime development and may not represent a permanent trend.

TABLE 6.—*Age Distribution of Claimants Under Rhode Island Cash Sickness Compensation Act, April 1943–March 1944, by Amount of Benefit and Sex*

Age	Number of claimants			Amount of benefits paid		
	Total	Male	Female	Total	To males	To females
All ages.....	32,624	14,239	18,385	\$3,881,162	\$1,744,743	\$2,136,419
15 years.....	1		1	165		165
16 years.....	51	33	18	2,241	1,584	657
17 years.....	310	151	159	21,593	10,382	11,211
18 years.....	401	104	297	32,343	8,487	23,856
19 years.....	566	100	466	54,314	8,636	45,678
20 years.....	622	107	515	68,585	11,700	56,885
21 years.....	717	82	635	78,629	8,454	70,175
22 years.....	683	98	585	83,125	10,363	72,762
23 years.....	672	95	577	78,776	8,887	69,889
24 years.....	711	111	600	82,916	10,790	72,126
25 years.....	745	147	598	94,111	16,624	77,487
26 years.....	756	171	585	89,335	18,149	71,186
27 years.....	811	196	615	98,495	21,251	77,244
28 years.....	760	229	540	89,634	23,730	65,904
29 years.....	816	250	566	96,166	26,815	69,351
30 years.....	796	244	552	91,582	26,573	65,009
31 years.....	727	252	475	84,308	26,286	58,022
32 years.....	742	253	489	81,441	25,196	56,245
33 years.....	725	241	484	83,649	23,788	59,861
34 years.....	718	250	468	79,311	27,310	52,001
35 years.....	739	212	527	83,874	23,023	60,851
36 years.....	724	266	458	81,791	27,282	54,509
37 years.....	749	274	475	87,105	30,716	56,389
38 years.....	730	258	472	81,412	27,483	53,929
39 years.....	731	279	452	83,663	30,447	53,216



TABLE 6.—*Age Distribution of Claimants Under Rhode Island Cash Sickness Compensation Act, April 1943–March 1944, by Amount of Benefit and Sex—Continued*

Age	Number of claimants			Amount of benefits paid		
	Total	Male	Female	Total	To males	To females
40 years.....	706	290	416	\$78,764	\$33,199	\$45,565
41 years.....	651	252	399	75,782	28,057	47,725
42 years.....	697	306	391	80,378	34,959	45,419
43 years.....	735	319	416	88,952	38,070	50,882
44 years.....	628	260	368	73,826	32,161	41,665
45 years.....	723	311	412	84,455	36,646	47,809
46 years.....	660	325	335	78,981	38,752	40,229
47 years.....	682	320	362	77,887	38,079	39,808
48 years.....	729	376	353	87,069	46,156	40,913
49 years.....	647	347	300	77,145	42,592	34,553
50 years.....	684	370	314	83,294	47,627	35,667
51 years.....	547	312	235	65,572	39,068	26,504
52 years.....	611	370	241	73,619	45,141	28,478
53 years.....	551	321	230	64,659	38,772	25,887
54 years.....	535	330	205	69,330	44,845	24,485
55 years.....	524	337	187	66,940	44,322	22,618
56 years.....	520	347	173	62,641	43,072	19,569
57 years.....	489	353	136	65,165	49,972	15,193
58 years.....	472	335	137	59,766	45,172	14,594
59 years.....	458	354	104	59,826	47,696	12,130
60 years.....	393	285	108	51,691	38,832	12,859
61 years.....	345	275	70	45,088	36,941	8,147
62 years.....	348	286	62	47,850	39,942	7,908
63 years.....	302	238	64	40,097	31,820	8,277
64 years.....	339	274	65	48,587	41,065	7,522
65 years.....	326	265	61	44,872	37,420	7,452
66 years.....	237	200	37	37,514	32,189	5,325
67 years.....	235	212	23	35,323	31,841	3,482
68 years.....	192	168	24	27,858	24,101	3,757
69 years.....	154	139	15	24,280	22,270	2,010
70 years.....	140	125	15	21,864	19,204	2,660
71 years.....	108	104	4	17,276	16,553	723
72 years.....	108	97	11	17,196	15,365	1,831
73 years.....	95	86	9	15,479	14,285	1,194
74 years.....	57	54	3	8,166	7,739	427
75 years.....	51	45	6	9,064	8,395	669
76 years.....	34	32	2	5,075	4,926	149
77 years.....	22	20	2	4,204	4,010	194
78 years.....	19	18	1	2,939	2,912	27
79 years.....	14	13	1	2,121	2,106	15
80 years.....	11	11	—	2,275	2,275	—
81 years.....	7	7	—	1,265	1,265	—
82 years.....	3	3	—	389	389	—
83 years.....	2	2	—	207	207	—
84 years.....	3	3	—	356	356	—
87 years.....	1	1	—	169	169	—
88 years.....	1	1	—	36	36	—
89 years.....	1	1	—	90	90	—
Age not reported.....	815	336	479	87,216	39,726	47,490

## NUMBERS OF CLAIMANTS IN THE VARIOUS INDUSTRIES

Factory workers, who in March 1944 constituted 68.9 percent of the total workers reported by employers under the system (table 2), formed 78.6 percent of all claimants for benefits, received 78.5 percent of all benefit payments (table 7), and were the industrial group benefiting most.

The second and third largest groups profiting from the program were found in construction and wholesale and retail trade with 5.6 and 6.7 percent, respectively, of all claimants and 6.7 and 6.1 percent, respectively, of all payments (table 7). Women formed 57.3 percent of the latter group and received 3.3 percent of all payments.

Textile workers, who formed 49.8 percent of the manufacturing workers and 39.1 percent of all claimants, collected more than their per capita quota of payments—52.9 percent of the payments to

manufacturing workers and 41.5 percent of all payments. Thus, whereas 1 in every 8 workers covered by the act drew upon the benefit fund, 1 in every 5 textile workers collected benefits. Women made up 72.5 percent of the 12,761 claimants from textile plants and received 72.8 percent of the \$1,610,587 paid to textile workers and 30.2 percent of all payments to workers. This was at a relatively higher rate than the incidence of women in the textile industry (51.2 percent), as shown by an official State report.<sup>4</sup> Women textile workers also received 30.4 percent of all weekly payments. On the other hand, they accounted for 34.9 percent of all claimants who exhausted their credits and, since they did not receive an undue proportion of weekly payments, apparently they had fewer than the average number of credits upon which to draw.

Somewhat the same generalization may be made about women claimants in all branches of manufacturing for, though they represented only 47.8 percent of all claimants and received 49.6 percent of the number of all weekly payments, they accounted for 60.8 percent of all claimants who exhausted their benefit credits. Men in manufacturing, on the other hand, made up 30.8 percent of all claimants but received only 28.7 percent of all weekly payments and accounted for only 18.5 percent of those who exhausted their credits. Male workers in manufacturing, it would appear, were ill less frequently than women and had more credits to expend.

TABLE 7.—*Claimants and Benefits Paid Under Rhode Island Cash Sickness Compensation Act, April 1943–March 1944, by Industry and Sex*

Industry	Number of benefit claimants			Amounts of benefits received			Number of weekly payments		Number of claimants exhausting credits	
	Total	Male	Female	Total	Male	Female	Male	Female	Male	Female
All industries.....	32,624	14,239	18,385	\$3,881,162	\$1,744,743	\$2,136,419	101,408	141,301	2,834	7,289
Agricultural services, forestry, and fishing.....	14	13	1	1,813	1,737	76	104	7	6	-----
Mining.....	19	19	-----	1,763	1,763	-----	102	-----	3	-----
Construction, contract.....	1,813	1,643	170	261,479	238,940	22,539	13,775	1,449	425	79
Manufacturing.....	25,634	10,044	15,590	3,046,961	1,202,645	1,844,216	69,696	120,357	1,875	6,159
Textile-mill products.....	12,761	3,510	9,251	1,610,587	437,567	1,173,020	25,558	73,895	783	3,537
Rubber products.....	800	205	595	94,076	27,043	67,033	1,578	4,483	54	255
Iron and steel.....	1,428	958	470	173,600	119,451	54,149	6,814	3,520	145	175
Transportation equipment (except automobiles).....	1,704	1,397	307	180,202	150,468	29,734	8,738	1,097	241	124
Nonferrous metal products (jewelry, etc.).....	1,114	419	695	131,151	54,349	76,802	3,146	5,328	97	283
Machinery (except electrical).....	2,923	2,012	911	336,379	240,757	95,622	13,748	6,493	270	363
Miscellaneous manufacturing.....	1,570	282	1,288	165,009	34,188	130,821	2,008	9,558	58	567
Other.....	3,334	1,261	2,073	355,857	138,822	217,035	8,096	15,083	227	855
Transportation, communication, utilities.....	1,306	875	431	148,731	106,228	42,503	6,052	2,703	123	109
Wholesale and retail trade.....	2,173	928	1,245	237,545	108,324	129,221	6,452	9,567	192	552
Finance, insurance, and real estate.....	480	233	247	59,416	29,803	29,613	1,790	1,980	60	91
Service industries.....	1,113	453	660	114,670	50,550	64,120	3,160	4,939	143	283
Establishments, not elsewhere classified.....	72	31	41	8,884	4,753	4,131	287	290	7	16

<sup>4</sup> Rhode Island Department of Labor, Industrial Inspection Division.

The lowest percentage of women in any manufacturing group was found among claimants in transportation equipment in which women accounted for 18.0 percent of the workers and for 16.5 percent of the benefit payments received by that group. The proportion of women was second lowest in the manufacture of machinery (31.2 percent), in which the percentage of benefit payments received was 28.4.

#### ILLNESSES FOR WHICH BENEFITS WERE PAID

The largest single amount of benefits was paid to 4,310 women workers for illnesses connected with pregnancy and related conditions (table 8). The largest group of claimants (5,259, consisting of 3,750 men and 1,509 women) were those suffering from acute poisoning and injuries—possibly related to the conditions usually covered by workmen's compensation. These collected the second largest amount paid to any one group. The two next heaviest drains on the sickness-compensation fund were caused by diseases of the digestive system and diseases of the circulatory system.

TABLE 8.—*Distribution of Claimants and Benefits Under Rhode Island Cash Sickness Compensation Act, April 1943–March 1944, by Type of Illness and Sex*

Type of illness <sup>1</sup>	Number of claimants			Amount of payments <sup>2</sup>			Number of payments <sup>2</sup>		Number exhausting credits <sup>2</sup>	
	Total	Male	Female	Total	Male	Female	Male	Female	Male	Female
All illnesses.....	32,624	14,239	18,385	\$3,881,162	\$1,744,743	\$2,136,419	101,408	141,301	2,834	7,289
Infectious and parasitic diseases.....	707	445	262	95,371	64,662	30,709	3,864	2,094	189	125
Neoplasms (tumors, cancers, etc.).....	552	276	276	76,115	43,658	32,457	2,550	2,139	102	98
Rheumatic fever, diseases of endocrine glands, and nutrition and other general diseases.....	664	200	464	82,270	28,087	54,183	1,627	3,661	51	198
Diseases of the blood and blood forming organs.....	493	72	421	57,399	10,070	47,761	575	3,142	11	131
Chronic poisoning and intoxication.....	6	5	1	711	615	96	39	8	2	-----
Diseases of the nervous system and sense organs, including mental disorders.....	2,440	907	1,533	293,808	128,226	160,623	7,493	10,499	260	428
Diseases of the circulatory system.....	3,277	1,706	1,571	457,769	263,271	194,498	15,435	12,809	568	696
Diseases of the respiratory system.....	4,710	2,349	2,361	428,112	211,613	191,290	12,224	12,477	261	392
Diseases of the digestive system.....	4,005	2,337	1,668	474,330	298,688	175,652	17,142	11,587	319	331
Diseases of the genitourinary system.....	2,512	394	2,118	301,473	54,423	247,050	3,176	16,155	83	732
Deliveries and complications of pregnancy, childbirth, and puerperium.....	4,310	-----	4,310	652,381	-----	652,381	-----	43,712	-----	3,057
Diseases of the skin.....	609	354	255	51,869	31,055	20,814	1,808	1,379	38	51
Diseases of the bones and organs of movement.....	1,928	994	934	240,215	130,906	109,309	7,613	7,078	227	318
Congenital malformations.....	13	11	2	958	775	183	52	11	2	-----
Diseases peculiar to first year of life.....	2	1	1	356	306	50	17	4	-----	-----
Other and ill-defined diseases.....	1,136	437	699	123,320	51,191	72,129	2,988	4,766	84	197
Injuries and poisonings.....	5,259	3,750	1,509	571,697	427,366	144,331	24,813	9,459	637	376
Other unenumerated conditions without sickness.....	1	1	-----	18	18	-----	1	-----	-----	-----

<sup>1</sup> Classified according to U. S. Public Health Service Code Manual for Coding Causes of Illness.

<sup>2</sup> Items do not in all cases add to total, but are shown in Board's detailed report. Discrepancies probably result from adjustment of payments.



Aside from acute poisonings and injuries and diseases of bones and organs of movement for men, and pregnancy and genito-urinary disorders for women, the outstanding diseases in number of cases were the same for men as for women, namely, diseases of the respiratory, digestive, circulatory, and nervous systems. The numbers of men and women suffering from diseases of the respiratory and circulatory system did not differ greatly, although even under war conditions the number of men employed in the State still exceeds the number of women. In cases of nervous and mental disorders, however, the proportion of male to female claimants was approximately 3 to 5, and in that of digestive troubles 23 to 16. The largest difference in the numbers of male and female claimants was found in poisonings and injuries, in which the number of men was more than twice that of the women.

Among the women, pregnancy cases cost the compensation fund much more than twice as much as the next highest class of illness. The other most expensive types of illnesses for women were diseases of the respiratory, circulatory, and digestive systems, in the order named. Among the men, acute poisonings and injuries cost the fund considerably less than twice the amount of benefits paid for diseases of the digestive system. The next most expensive types of illness for men were diseases of the circulatory and respiratory systems, and of the bones and organs of movement.

The accompanying tabulation shows the number of cases and amount of payments for a few well-known causes of illness.

	<i>Total payments</i>	<i>Number of cases</i>
Heart diseases.....	\$304, 935	1, 991
Arthritis.....	171, 571	1, 317
Mental and nervous disorders.....	153, 729	1, 334
Pneumonia.....	119, 717	981
Influenza.....	98, 666	1, 380
Bronchitis.....	88, 262	993
Appendicitis.....	86, 468	864
Tuberculosis.....	62, 791	380
Pernicious anemia.....	55, 359	476
Neuritis.....	43, 160	390
Cancer.....	39, 000	210
Diabetes.....	24, 049	190
Rheumatism.....	17, 688	144
Tonsilitis.....	16, 304	279
Epilepsy.....	5, 075	39
Infected or impacted teeth.....	4, 732	65
Senility.....	1, 522	10
Alcoholism.....	621	5
Headache.....	205	3

#### RESIDENCE OF CLAIMANTS

The greater part of the benefit recipients during the first year of the cash sickness-compensation program consisted of residents of Rhode Island. Only 3.6 percent of all recipients and 3.9 percent of all payments were listed as nonresident, with Massachusetts accounting for 90.8 percent of the nonresidents and 89.3 percent of such payments. In this connection, it should be noted that the United States Census, includes Attleboro, Mass., in the metropolitan district of Providence, R. I. Men predominated among the nonresidents, in the proportion of 659 to 518 individuals and of \$87,364 to \$62,270, Massachusetts again leading.

## FINANCING THE SICKNESS-COMPENSATION PROGRAM

The act which created the sickness-compensation system made it dependent upon the proceeds of a 1-percent tax on wages up to \$3,000. This tax was to be withheld and turned over to the Rhode Island Unemployment Compensation Board by the employer. Under regulations established by the Board, the employer must complete these payments quarterly, with a 1-month lag. Thus, the contributions for the quarter ending March 31 must be paid by April 30. Since income from investments is small, this procedure explains the large receipts recorded four times a year (in February, May, August, and November) which are noticeable in table 9.

The General Treasurer of the State of Rhode Island and Providence Plantations is legal custodian of the fund thus created. The act provides that the fund be used to pay benefits upon vouchers drawn by the Board, to pay certain refunds when necessary, and to pay administrative expenses. The original act allowed 1 percent per year of the contribution from the annual wage tax for expenses connected with administration; an amendment of the legislative session in the spring of 1944 raised the percentage to 3.

Table 9 presents figures for receipts (made up of the wage tax and interest), net benefits paid, other disbursements (including adjustments on benefit claims and administrative expenses), and the balance in the fund, by months.

TABLE 9.—*Net Receipts, Net Benefit Payments, and Balance of Rhode Island Cash Sickness Compensation Fund, by Months, April 1943–October 1944*<sup>1</sup>

Year and month	Receipts (contribu- tions and interest)	Net benefits paid	Other dis- bursements	Balance in fund
Total period of operation.....	\$10, 213, 128	\$7, 216, 206	\$238, 237	\$2, 758, 685
June 1942–March 31, 1943.....	2, 677, 774		17, 837	2, 659, 937
1943: April.....	450, 410	120, 548	1, 467	2, 988, 332
May.....	733, 231	265, 233	2, 484	3, 453, 846
June.....	26, 076	450, 566	1, 725	3, 027, 631
July.....	354, 941	354, 222	1, 490	3, 026, 850
August.....	893, 447	403, 310	23, 338	3, 493, 649
September.....	13, 728	357, 447	442	3, 149, 489
October.....	306, 597	298, 212	12, 648	3, 145, 225
November.....	813, 505	313, 408		3, 645, 323
December.....	26, 739	294, 222	821	3, 377, 019
1944: January.....	331, 289	288, 083	3	3, 420, 222
February.....	711, 224	304, 062	11, 698	3, 815, 686
March.....	19, 738	324, 997	250	3, 510, 177
Total, benefit year.....	4, 680, 925	3, 774, 310	56, 375	
1944: April.....	497, 164	347, 470	10, 823	3, 649, 048
May.....	714, 512	598, 691	6, 093	3, 758, 776
June.....	22, 871	629, 753	71, 582	3, 080, 312
July.....	536, 427	521, 234	36, 236	3, 059, 270
August.....	652, 626	526, 306	1, 011	3, 184, 578
September.....	11, 774	408, 754	1, 860	2, 785, 738
October.....	419, 055	409, 688	36, 420	2, 758, 685

<sup>1</sup> Minor discrepancies in balances are result of rounding figures to nearest dollar. Data are from Summary of the Cash Sickness Insurance Program in Rhode Island for the Benefit Year 1943–44, published by the Board.

In the period between the effective date of the act and the beginning of benefit payments in April 1943, the tax contributions piled up a fund of \$2,677,774 and a balance of \$2,659,937. Contributions in

November 1942 reached \$942,947, a sum not exceeded at the end of any quarterly reporting period in 1943 or 1944. In the 12 months of the benefit year ending on March 31, 1944, the tax on wages (including interest) paid into the fund \$4,680,925, and \$2,854,429 in the first 7 months of the year 1944-45. Total receipts to the end of October 1944 amounted, therefore, to \$10,213,128. The last 5 months of the year 1944-45, however, contained the end of two quarterly reporting periods, and if contributions continued at the rate achieved in the first 7 months, the year 1944-45 would produce \$4,893,300 and raise the total receipts to \$12,251,999.

During the first year of benefit payments, the total net sum paid out to claimants was \$3,774,310, and during the first 7 months of the second year similar payments amounted to \$3,441,896, making a total of \$7,216,206 of benefit payments during the operation of the system. If benefit payments were to continue at the same rate for the 12 months of 1944-45 as for the first 7 months (which would be to assume the maximum, since winter payments previously were less than those in summer), the total payments for the year 1944-45 would amount to \$5,900,388, and the total for the 2 years to \$9,674,698. For the 7-month period, April-October 1944, benefits paid exceeded income by nearly \$600,000.

The difference between receipts and benefit payments to the end of October 1944 was \$2,996,922; under the above estimates to the end of the benefit year 1944-45, the difference would be \$2,577,301. Without considering any expenditures but those for benefit payments, during the second year the fund was running behind first performance. Additional expenditures, however, rose from \$56,375 in the first 12 months to \$164,025 in the first 7 months of the second year. Consequently, the Board reported a balance of but \$2,758,685 at the end of October 1944, a sum which was only \$98,748 more than the balance that accrued during 1942 and part of 1943 before benefit payments began to be made.

This record was made in Rhode Island during the months of high employment, and consequently high wage deductions, in late 1942 and early 1943. It is easy to see what declining employment would mean to the fund, especially while it had to carry the accumulated burden of benefit claimants who earned credits in a preceding year of good employment.

The company which audited the State accounts and released a report in mid-December recommended a change in the system, in order to put the fund on a safe actuarial basis, and the Board made a similar recommendation.

### *Problems of the System and Suggestions for Their Solution*

This experiment in worker-supported, State-directed sickness compensation has not only provided workers with the means for medical care and a certain mental sense of security, but it has given them a share in a well-publicized civic enterprise, of whose significance the workers in general are well aware.

Practical problems involving not only human nature but also the terms of the act, however, bulk large in administration. Examples of the first type of problem include certain fraudulent or questionable practices, as for instance, (1) application for and acceptance of benefit



payments by a worker while at his regular work, (2) obtaining benefits while at work different from the worker's regular duties and using the ambiguity in the definition of sickness under the law as justification,<sup>5</sup> (3) malingering, and (4) some alleged "buck passing" to Board physicians by the examining doctors in cases in which diagnosis is difficult.

Problems that spring from the terms of the act are concerned with (1) the broad definition of sickness under the act, (2) regulations which permit a worker to receive simultaneously two or more types of compensation (sickness benefits, workmen's compensation, wages paid by an employer during a worker's illness, various types of group insurance, etc.), and (3) the adequacy of the 1-percent deduction from wages to finance the sickness-compensation system.

The solution to the first set of problems may lie in measures for general enlightenment and education in civic responsibility. Every interested group has its own solutions for problems of the second type.

Some persons recommend the elimination of pregnancy cases from the classes of sickness covered by the general definition, as these cases constitute such a heavy drain on the fund (see table 8), and some would limit pregnancy payments to 8 or 10 weeks; others, on the contrary, strongly support the retention of these benefits. Certain groups are concerned over the payment of benefits for complaints such as "nervousness," headaches, and alcoholism, and would demand a narrowing and clarification of the definition to include only what they regard as "real" illnesses. Although it has been pointed out that, since workers obtain eligibility in the system through their employment and without medical examination, the definition for sickness covers chronic conditions, little public discussion and no remedy for eliminating such conditions under the definition appears to have been offered.

Problems which develop from professional differences regarding the definition and diagnosis of certain cases are, of course, inevitable. One opinion holds that, if the examining physicians employed by the Board were the "experts" the act seems to require, or specialists, instead of general practitioners, such differences would be fewer. Others maintain that even among "experts" differences are frequent; they also point out that in these wartime days doctors are scarce and hard pressed. The State Medical Society has appointed a committee to work with and advise the Board administering the sickness-compensation system on problems of medical certification.

The problem that arises when claimants under the sickness-compensation law receive compensation from other sources has produced two radically opposed opinions. As such double payments might conceivably make it more profitable for a claimant to remain at home than to go to work, one opinion favors abolition of the right to cash benefits under the act if the claimant receives compensation from any other source. The other holds that, with the exception of the payment of salaries during sickness, all other payments are merely different types of insurance to which the worker is entitled if he or his employer is a contributor. A check is now being made of the

<sup>5</sup> A number of cases have been prosecuted for fraud and, in several instances which received considerable publicity, workers in receipt of sickness benefits were found at work either at their regular jobs or at other employment.

number of sickness-compensation claimants who also received workmen's compensation, to determine what saving would be achieved by eliminating double benefits.

The most serious of the practical problems, and the one underlying many of the others, is the adequacy of the fund created by the 1-percent deduction from wages which was diverted from the unemployment-compensation fund to finance the new program. One recommendation, to take from the sickness fund the rest (one-half of 1 percent) of the tax on workers' wages, has already been defeated once in the legislature. Workers who see an advantage in retaining a voice for labor in both programs oppose such a change. In December 1944 the auditors of the State accounts, however, made the recommendation a second time, pointing out that "continuation of the current rate of expenditure without increased contributions will eventually impair the solvency of the fund." There is also a considerable body of public opinion to the effect that, since the 1-percent tax produced only a moderate reserve in times of high wages and employment, an increase in the tax is essential before the beginning of post-war adjustments. On the other hand, it is noted that the experience in wartime may not be typical, as manpower demands have loaded the labor force with an unusually large proportion of younger women and older people of both sexes.

Other students of these problems believe that the time has arrived to use the act's provision for emergencies and install a lower scale of benefit payments. Still others (including the auditors of the State accounts,<sup>6</sup>) maintain that, by narrowing the definition of sickness as indicated above, eliminating the collection of double payments, and dealing more drastically with malingerers and border-line cases, benefit payments could be so reduced as to insure a proper actuarial balance in the fund without increase of taxation.

Undoubtedly, the General Assembly of the next Rhode Island Legislature will have brought before it various amendments along the lines indicated above. During 1944, the Governor appointed a State Advisory Council on Health, and it has been suggested that this council might well review the entire sickness program, for the benefit of the General Assembly in its deliberations.

<sup>6</sup> The auditors in their report suggest that consideration be given to the adoption of a definition of sickness similar to that used by insurance companies in their policies.

# Public Employment and Pay Rolls in the United States, 1929-39, and Post-War Implications<sup>1</sup>

## Summary

THE general upward trend in public employment and pay rolls between 1929 and 1939 may be expected to reappear after the war, following a brief period in which curtailment of Federal activity will cause total government employment and pay rolls to fall substantially from wartime levels. Because of the underlying pre-war tendency, however, Federal employment, averaging 2,901,000 a month in 1944, is not likely to drop to the 1939 figure of 888,400, or even to fall as low as 1 million. This fact and the prospect of an upward spurt in State and local activity will mean that the gradual increase in total public employment after the war will probably be resumed from levels higher than those established in 1939.

State and local governments accounted for well over three-fourths of total public employment in 1939, but only a little over half in 1944. They will probably reassume their pre-war importance after the war. Although local agencies alone should again supply the greater part of all public services, their share of total public employment may be reduced to a half as compared with three-fifths in 1939, because State governments are expected to grow more rapidly than local. Expansion in State services will be occasioned not only by the immediate need for highway work seriously curtailed during the war, but also by further increase in social insurance and health services, and by restaffing of hospitals, charitable, and correctional institutions.

Public employment of all kinds increased 30 percent between 1929 and 1939, from 3,065,800 to 3,978,700; and average monthly pay rolls rose 28 percent from 379 million to 487 million dollars. The Federal and State Governments grew much more rapidly than county, city, and other local governments, but the latter group nevertheless continued to make up the greater part of the total—61 percent of all employees and 56 percent of all pay rolls in 1939. The upward trend in State and local activity was evident in all parts of the country, although the sharpest growth occurred in the Southern and Pacific States.

Allowing for population growth, the increase in all governmental employment and pay rolls was about one-fifth in the 11 years. Employment rose from a monthly average of 250 per 10,000 inhabitants to 302, and pay rolls per inhabitant from \$3.09 to \$3.70 a month.

Local activity was about equally divided between education and general government functions, with 5 percent of employment and pay rolls going to public-service enterprises such as waterworks. At the State level, general functions required about three-fourths of the total, with education second, and public-service enterprises minor.

The average monthly payment per non-Federal employee varied greatly between States, ranging from \$158 in New York in 1939 to \$53 in Mississippi. The median amount was \$93. Only a third of the States made higher payments per employee in 1939 than in 1929.

<sup>1</sup> Prepared in the Bureau's Division of Construction and Public Employment by Carol P. Brainerd.



Federal payments averaged \$162 per employee in 1929 and \$156 in 1939.

### *Scope and Method of Study*

This article traces the trend and composition of governmental employment and pay rolls from 1929 to 1939, and gives some analysis of the factors involved, as a partial basis for forecasting post-war requirements in the field of government. Governmental employment and pay rolls are covered at three levels—Federal, State, and local. State and local data are shown in three main functional divisions and are also presented by geographic regions and by States. All data in the underlying tables are annual averages per month, derived for the most part from monthly tabulations.

The State and local estimates given here for 1929 to 1939 include the public-school systems and are available for the first time. They are based upon data collected by the State, County, and Municipal Survey, a study conducted from 1939 to 1943 by the Bureau of Labor Statistics and the Work Projects Administration. Although the tabulation work of the Survey was not completed when the WPA program was closed early in 1943, enough material was available to permit estimates in terms of annual averages, by major functions and by States.

The 11-year estimates of the State, County, and Municipal Survey were built up from monthly data collected by field agents from the pay-roll records of State governments and a sample of counties, cities and other municipalities, townships, and special-purpose governmental agencies such as school districts, housing authorities, port districts, etc. Except for a few States, they are not considered final, because the tabulated sample now available for estimating use is smaller than the sample scheduled.<sup>2</sup>

The Federal series for 1934 to 1939 are based upon the ones regularly prepared by the Bureau of Labor Statistics from monthly reports to the Civil Service Commission and to the Bureau; the series for 1929 to 1933 have been compiled partly from these sources and partly from published annual reports of the individual agencies and from the Budget of the United States.<sup>3</sup>

<sup>2</sup> In processing the basic SCM schedules, all the data for pay periods of different lengths were reduced to monthly terms, and the number of employees in a month was obtained by combining the total number on monthly pay rolls with the average number appearing on semimonthly and weekly pay rolls. Regular teachers were shown as employed throughout the year, regardless of vacation periods. Part-time employees (defined according to the number of days worked during the pay period) were included. Data for persons whose employment was so brief or intermittent as to be considered nominal were when possible either scaled down in terms of time worked, or excluded from tabulation. Except for this operation and the process of averaging to obtain a figure for each month, no attempt was ordinarily made to adjust the scheduled employment data toward a full-time equivalent.

For a brief description of SCM coverage and techniques, see the bulletin SCM 1 (Revised) on Employment and Pay Rolls of the City of Scranton and Lackawanna County, Pennsylvania, 1929 through 1938 (U. S. Department of Labor, Bureau of Labor Statistics, 1939), which was the first of a series of separate publications giving detailed data on individual cities, counties, and States. For comparative data on large cities, see the article, Municipal Employment and Pay Rolls in Large Cities, 1929-38, in *Monthly Labor Review*, June 1943 (also reprinted as Serial No. R 1540).

A more complete discussion of SCM coverage and procedures and an explanation of the methods used in obtaining the present estimates will be included in a forthcoming report which presents the basic estimating tables in detail.

<sup>3</sup> The entire Federal employment series was revised as of June 1944 to include employees of Government corporations, to exclude fourth-class postmasters, and to convert the employment of temporary postal substitutes from a full-time equivalent to a name-count basis. Federal force-account construction workers, who are shown under "Contract construction and Federal force-account construction" in the BLS monthly estimates of nonagricultural employment, have been included here. (Force-account workers are those who are hired directly by the Government to work on a particular construction project and whose employment will be terminated at the completion of the project. Federal agencies which employ large numbers of this type of workers are the War and Interior Departments and the Tennessee Valley Authority.) Data for Federal employees working outside continental United States have been excluded.

### General Trend

The general trend of public employment and pay rolls was decidedly upwards in the 11 years preceding 1940, the year when the effects of the war were first strongly felt in the American economy. Between 1929 and 1939 all governmental employment—Federal, State, and local—rose 30 percent; from a monthly average of 3,065,800 to 3,978,700. The rise was remarkably steady, in spite of the fact that the figures in table 1 reflect boom, depression, and recovery. In chart 1 the depression trough of 1932 to 1934 appears as only an interruption of the trend. Pay rolls reflected cyclical changes more sharply than did employment (see chart 2) but followed the same general tendency, increasing 28 percent from 379 million dollars a month in 1929 to 487 million dollars in 1939.

TABLE 1.—*Estimated Average Monthly Employment and Pay Rolls of Federal, State, and Local Governments, 1929 to 1939*<sup>1</sup>

Year	Total	Federal <sup>2</sup>	State <sup>3</sup>	Local <sup>3</sup>	Total	Federal <sup>2</sup>	State <sup>3</sup>	Local <sup>3</sup>
	Employment (in thousands)				Pay rolls (in thousands)			
1929	3,065.8	534.2	411.7	2,119.9	\$379,340	\$86,682	\$45,738	\$246,920
1930	3,201.8	579.6	433.3	2,188.9	396,771	89,461	48,848	258,462
1931	3,269.0	564.7	459.7	2,244.6	402,356	90,091	51,034	261,231
1932	3,225.4	558.9	466.2	2,200.3	375,741	84,520	49,465	241,756
1933	3,167.5	566.2	464.4	2,136.9	343,040	77,516	46,499	219,025
1934	3,298.3	651.4	494.3	2,152.6	358,323	92,259	48,296	217,768
1935	3,476.5	748.3	521.0	2,207.2	394,689	113,423	52,686	228,580
1936	3,662.1	820.6	569.3	2,272.2	430,395	128,537	59,000	242,858
1937	3,751.0	827.6	602.1	2,321.3	448,951	128,758	64,869	255,324
1938	3,887.7	833.7	662.9	2,391.1	472,086	129,184	73,664	269,238
1939	3,978.7	888.4	666.7	2,423.6	486,904	138,827	74,990	273,087
	Percentage distribution							
1929	100.0	17.4	13.4	69.2	100.0	22.8	12.1	65.1
1930	100.0	18.1	13.5	68.4	100.0	22.6	12.3	65.1
1931	100.0	17.3	14.0	68.7	100.0	22.4	12.7	64.9
1932	100.0	17.3	14.5	68.2	100.0	22.5	13.2	64.3
1933	100.0	17.9	14.6	67.5	100.0	22.6	13.6	63.8
1934	100.0	19.7	15.0	65.3	100.0	25.7	13.5	60.8
1935	100.0	21.5	15.0	63.5	100.0	28.7	13.4	57.9
1936	100.0	22.4	15.5	62.1	100.0	29.9	13.7	56.4
1937	100.0	22.1	16.0	61.9	100.0	28.7	14.4	56.9
1938	100.0	21.4	17.1	61.5	100.0	27.4	15.6	57.0
1939	100.0	22.3	16.8	60.9	100.0	28.5	15.4	56.1

<sup>1</sup> Includes school districts and other special-purpose agencies. Excludes military and work-relief employment and pay rolls.

<sup>2</sup> Excludes data for fourth-class postmasters and for employees outside continental United States. Includes force-account construction.

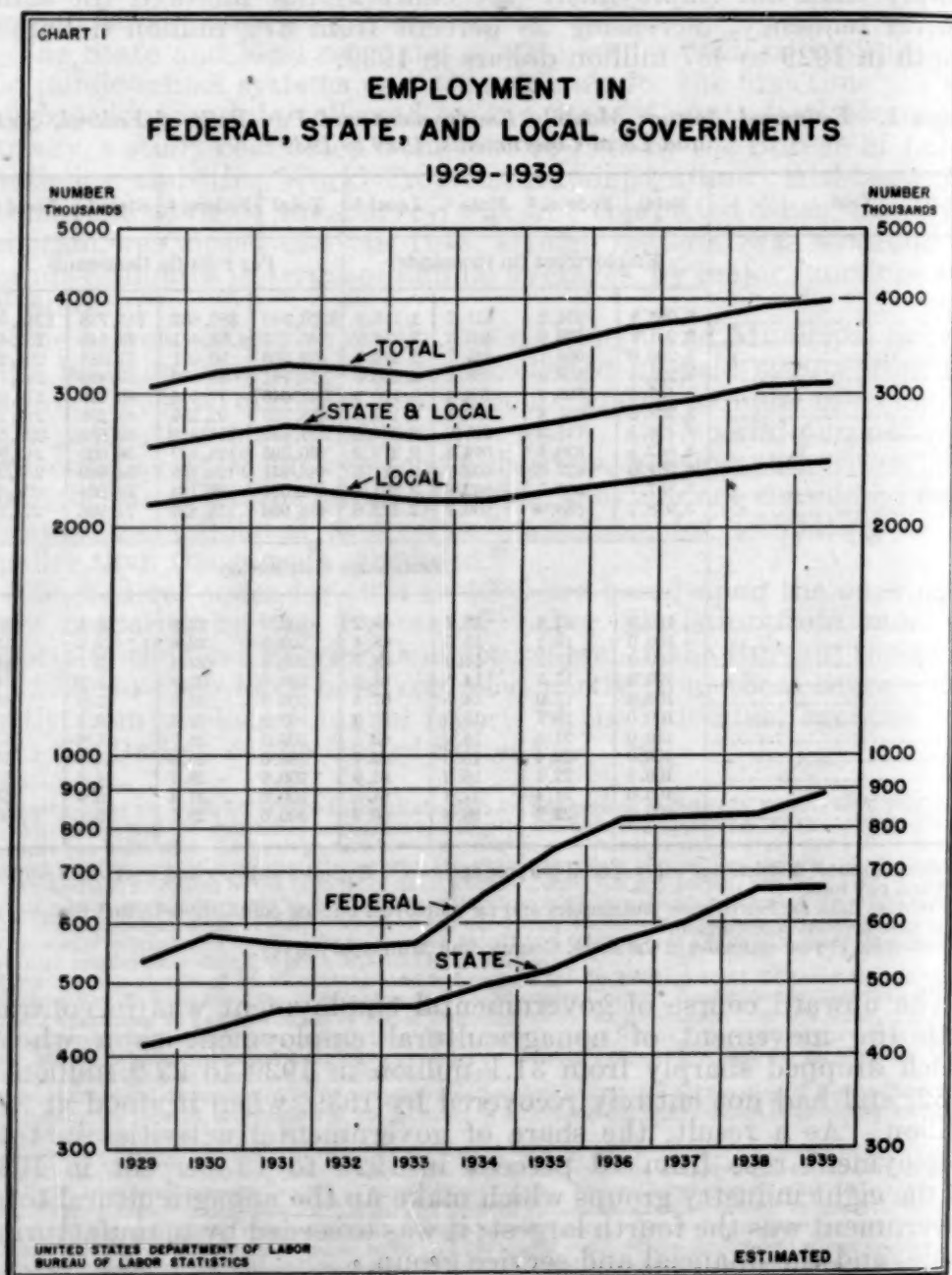
<sup>3</sup> Data from 11-year estimates of the State, County, and Municipal Survey.

The upward course of governmental employment was in contrast with the movement of nonagricultural employment as a whole,<sup>4</sup> which dropped sharply from 31.1 million in 1929 to 22.9 million in 1932, and had not entirely recovered by 1939, when it stood at 30.4 million. As a result, the share of governmental activities in total employment rose from 10 percent in 1929 to 13 percent in 1939. Of the eight industry groups which make up the nonagricultural total, government was the fourth largest; it was exceeded by manufacturing, trade, and the financial and service group.

<sup>4</sup> See *Employment in Nonagricultural Establishments in the United States, 1929-43*, in *Monthly Labor Review*, September 1944 (p. 654).

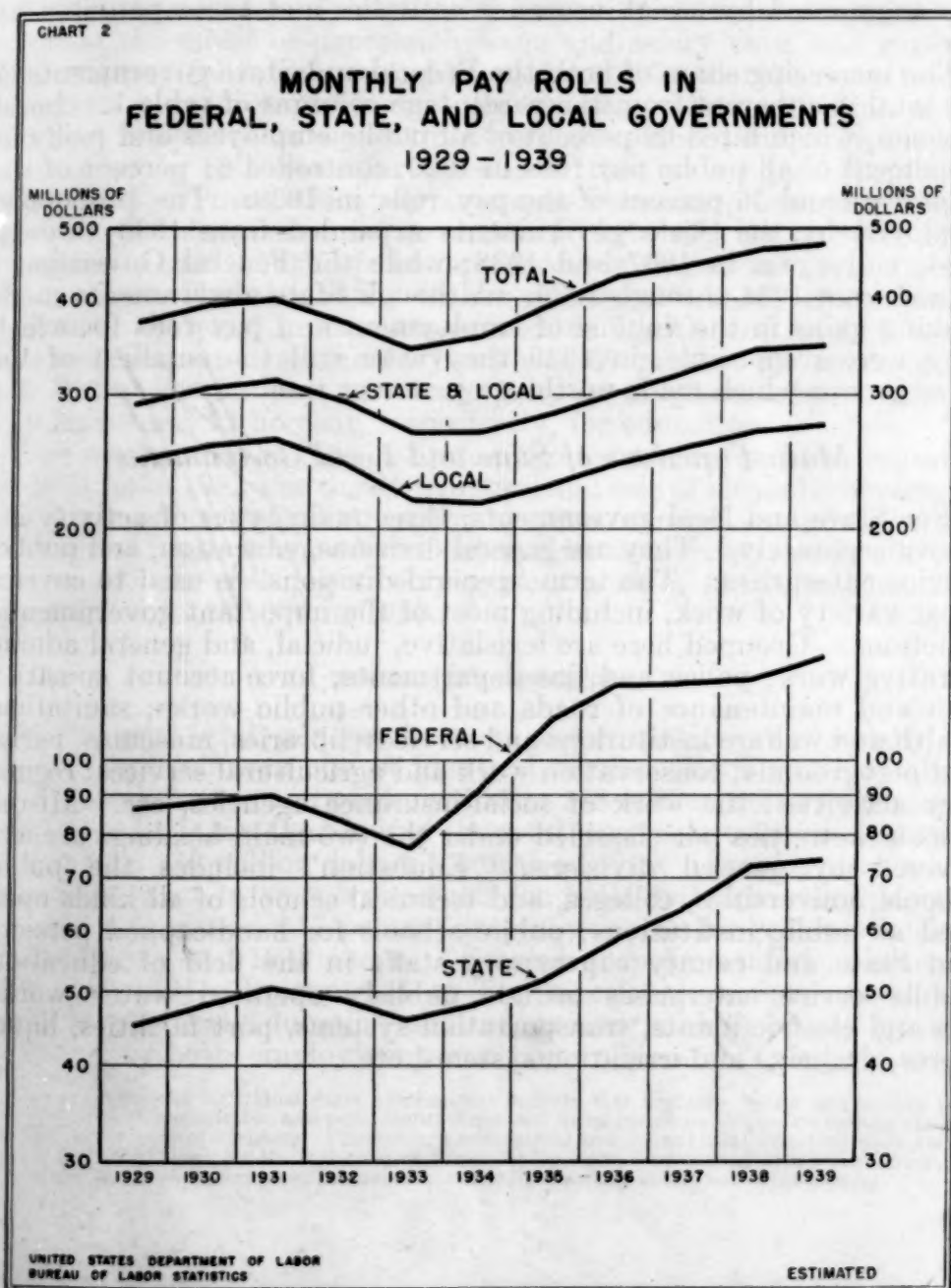
Year-to-year variations in public employment were not great, the largest being a 5.4-percent increase in 1935. The sharpest pay-roll change was the 1935 rise of 10.1 percent. The following comparison of percentage changes in employment and pay rolls year by year shows clearly the effect of cyclical factors:

Percent of change in—			Percent of change in—		
	Employment	Pay rolls		Employment	Pay rolls
1930.....	+4.4	+4.6	1935.....	+5.4	+10.1
1931.....	+2.1	+1.4	1936.....	+5.3	+9.0
1932.....	-1.3	-6.6	1937.....	+2.4	+4.3
1933.....	-1.8	-8.7	1938.....	+3.6	+5.2
1934.....	+4.1	+4.5	1939.....	+2.3	+3.1





The course of the general trend was primarily determined by local governmental agencies, which accounted for the greatest part of the total and were most affected by economic depression. This group consisted of counties, municipalities, townships, and special-purpose agencies such as school districts. The employees of this group represented 10 percent of the employment in all nonagricultural establishments in 1939. The rise from 1934 through 1939 was, for local governments, first only a gradual recovery and then a resumption of the earlier rising trend. Local employment increased 14 percent and pay rolls 11 percent over the 11-year period. State and Federal activities were less handicapped by depression curtailments, and rose more rapidly after 1933. The net increase for Federal employment was 66 percent and for State employment 62 percent; corresponding pay-roll increases were 60 and 64 percent. Except for a 1939 rise,



the Federal expansion occurred in 1934, 1935, and 1936, while State services grew more steadily.

The rapid growth of Federal and State work after 1933 was partly a response to the demands arising from depression needs. The Federal employment curve on chart 1 and the corresponding pay-roll curve on chart 2 would not have risen so sharply had it not been for the creation of emergency agencies, such as the National Recovery Administration and the Agricultural Adjustment Administration, to deal with specific depression conditions. The organization of social insurance in its various forms—unemployment compensation, old-age benefits, etc.—not only meant the establishment in 1935 of the Federal Social Security Board but also required substantial administrative staffs in State governments. Health and welfare activities, together with highway work, were responsible for much of the State expansion both before and after 1936. From then on the expansion was augmented by social-insurance activities and accompanying tax work.

The increasing share of both the Federal and State governments in the total is apparent from the percentage columns of table 1. Local agencies, which hired 69 percent of all public employees and paid out 65 percent of all public pay rolls in 1929, controlled 61 percent of the employees and 56 percent of the pay rolls in 1939. The proportion employed by the State governments expanded from 1930 through 1934, and again in 1937 and 1938; while the Federal Government gained from 1934 through 1936. Although State governments made striking gains in the volume of employment and pay rolls for which they were responsible, in 1939 they were still the smallest of the three groups which made up the government total.

### *Main Functions of State and Local Governments*

For State and local governments, three main types of activity are shown separately. They are general divisions, education, and public-service enterprises. The term "general divisions" is used to cover a great variety of work, including most of the important governmental functions. Grouped here are legislative, judicial, and general administrative work; police and fire departments; force-account construction and maintenance of roads and other public works; sanitation; health and welfare institutions and services; libraries, museums, parks, and playgrounds; conservation work and agricultural services; regulatory activities; the work of social-insurance agencies, etc. Miscellaneous activities not classified under the two main headings are also covered by general divisions. "Education" includes the public schools; universities, colleges, and technical schools of all kinds operated as public institutions; public schools for handicapped persons; and State and county supervisory staffs in the field of education. Public-service enterprises include publicly operated water works, gas and electric plants, transportation systems, port facilities, liquor stores, drainage and irrigation systems, etc.

## STATE GOVERNMENTS

The majority of State government employees—79 percent in 1939—worked on activities of the general-divisions type;<sup>5</sup> 18 percent were in education and only 3 percent in public-service enterprises. General divisions and public-service enterprises both increased in importance in the State total at the expense of education during the period. The change was especially marked for pay rolls, in which the proportion going to education decreased from 27 percent in 1929 to 20 percent in 1939; for employment the percentages were 23 and 18. (See table 2.)

This shift in emphasis reflected primarily an expansion in the scope and volume of State services provided under general divisions. During the period many States assumed the burden of issuing relief to unemployed workers, and some expanded their public-works programs in an effort to stimulate greater economic activity. Pay rolls for the additional employees, however, were not large enough to offset the effect of depression wage and salary cuts, and general-divisions pay rolls dropped 7 percent from 1931 to 1933 in spite of a 3-percent gain in employment. By contrast, State education activities lost 4 percent in employment and 13 percent in pay rolls, and education pay rolls were further cut in 1934 to a figure 17 percent below 1931. These education decreases were sharp enough to bring the State employment total down and to intensify the pay-roll drop. Starting in 1936, much of the increase in both general divisions and the total can be attributed to the administration of State social-insurance systems, to new taxes, and to health and welfare work. The net increase over the 11 years was 69 percent for employment and 76 percent for pay rolls under general divisions, compared with 28 percent and 22 percent, respectively, for education.

The most common type of State-operated enterprise after repeal of prohibition in 1933 was the distribution and sale of alcoholic beverages. Development of such distribution systems caused employment and pay rolls of State public-service enterprises to increase nearly 300 percent from 1929, reaching an employment peak of 16,900 and monthly pay rolls of \$2,182,000 in 1939.

## LOCAL GOVERNMENTS

At the local level, general divisions and education were equally important, and followed almost identical trends. Each required about 1 million employees and paid out 115 to 118 million dollars per month in 1929—a little less than half of the total; each rose to about 1,150,000 persons and 130 million dollars a month in 1939. Employment variations from year to year were small for both, but depression lay-offs and pay cuts caused a 17-percent drop in pay rolls for general divisions between 1931 and 1933 and a 16-percent drop for education between 1931 and 1934. In contrast to the functional movements at the State level, local education showed greater stability than general divisions, in both employment and pay rolls.

<sup>5</sup> Detailed studies of individual State governments indicate that highway, health and welfare work (including hospitals, charitable, and penal institutions), and social-insurance services are usually the chief functions under general divisions. Protection, conservation, and general administrative work are frequently large units also. See the various State releases of the State, County, and Municipal Survey, and the series of reports on Government Employment currently issued by the Bureau of the Census.



TABLE 2.—*Estimated Average Monthly Employment and Pay Rolls of State and Local Governments, by Main Functions, 1929 to 1939*<sup>1</sup>

Year	State governments				Local governments			
	Total	General divisions	Educational	Public-service enterprises	Total	General divisions	Educational	Public-service enterprises
<b>Employment (in thousands)</b>								
1929	411.7	313.1	94.2	4.4	2,119.9	985.9	1,026.3	107.7
1930	433.3	329.6	98.4	5.3	2,188.9	1,024.7	1,051.4	112.8
1931	459.7	354.1	99.8	5.8	2,244.6	1,069.5	1,060.5	114.6
1932	466.2	361.8	98.6	5.8	2,200.3	1,046.8	1,049.6	103.9
1933	464.4	362.8	95.6	6.0	2,136.9	1,010.3	1,026.4	100.2
1934	494.3	388.6	95.8	9.9	2,152.6	1,025.6	1,026.0	101.0
1935	521.0	408.2	100.7	12.1	2,207.2	1,052.1	1,050.8	104.3
1936	569.3	448.3	106.2	14.8	2,272.2	1,094.4	1,067.8	110.0
1937	602.1	473.9	112.2	16.0	2,321.3	1,113.6	1,094.2	113.5
1938	662.9	527.8	118.5	16.6	2,391.1	1,157.3	1,120.1	113.7
1939	666.7	529.2	120.6	16.9	2,423.6	1,161.6	1,146.3	115.7
<b>Percentage distribution</b>								
1929	100.0	76.0	22.9	1.1	100.0	46.5	48.4	5.1
1930	100.0	76.1	22.7	1.2	100.0	46.8	48.0	5.2
1931	100.0	77.0	21.7	1.3	100.0	47.6	47.3	5.1
1932	100.0	77.6	21.2	1.2	100.0	47.6	47.7	4.7
1933	100.0	78.1	20.6	1.3	100.0	47.3	48.0	4.7
1934	100.0	78.6	19.4	2.0	100.0	47.6	47.7	4.7
1935	100.0	78.4	19.3	2.3	100.0	47.7	47.6	4.7
1936	100.0	78.7	18.7	2.6	100.0	48.2	47.0	4.8
1937	100.0	78.7	18.6	2.7	100.0	48.0	47.1	4.9
1938	100.0	79.6	17.9	2.5	100.0	48.4	46.8	4.6
1939	100.0	79.4	18.1	2.5	100.0	47.9	47.3	4.9
<b>Pay rolls (in thousands of dollars)</b>								
1929	45,738	32,695	12,463	580	246,920	115,102	117,694	14,124
1930	48,848	35,063	13,129	656	258,462	122,208	121,472	14,782
1931	51,034	36,901	13,344	789	261,231	123,478	123,228	14,525
1932	49,465	35,830	12,864	771	241,756	112,805	116,480	12,471
1933	46,499	34,184	11,562	753	219,025	101,962	105,843	11,220
1934	48,296	36,090	11,060	1,146	217,708	103,272	103,076	11,420
1935	52,686	39,332	11,831	1,523	228,580	108,639	108,000	11,941
1936	59,000	44,452	12,751	1,797	242,858	117,048	112,847	12,963
1937	64,869	49,082	13,783	2,004	255,324	122,413	118,893	14,018
1938	73,664	56,597	14,903	2,164	269,238	129,834	125,162	14,242
1939	74,990	57,556	15,252	2,182	273,087	130,595	127,841	14,651
<b>Percentage distribution</b>								
1929	100.0	71.5	27.2	1.3	100.0	46.6	47.7	5.7
1930	100.0	71.8	26.9	1.3	100.0	47.3	47.0	5.7
1931	100.0	72.3	26.2	1.5	100.0	47.3	47.2	5.5
1932	100.0	72.4	26.0	1.6	100.0	46.7	48.2	5.1
1933	100.0	73.5	24.9	1.6	100.0	46.6	48.3	5.1
1934	100.0	74.7	22.9	2.4	100.0	47.4	47.3	5.3
1935	100.0	74.7	22.4	2.9	100.0	47.5	47.3	5.2
1936	100.0	75.3	21.6	3.1	100.0	48.2	46.5	5.3
1937	100.0	75.7	21.2	3.1	100.0	47.9	46.6	5.5
1938	100.0	76.9	20.2	2.9	100.0	48.2	46.5	5.3
1939	100.0	76.8	20.3	2.9	100.0	47.8	46.8	5.4

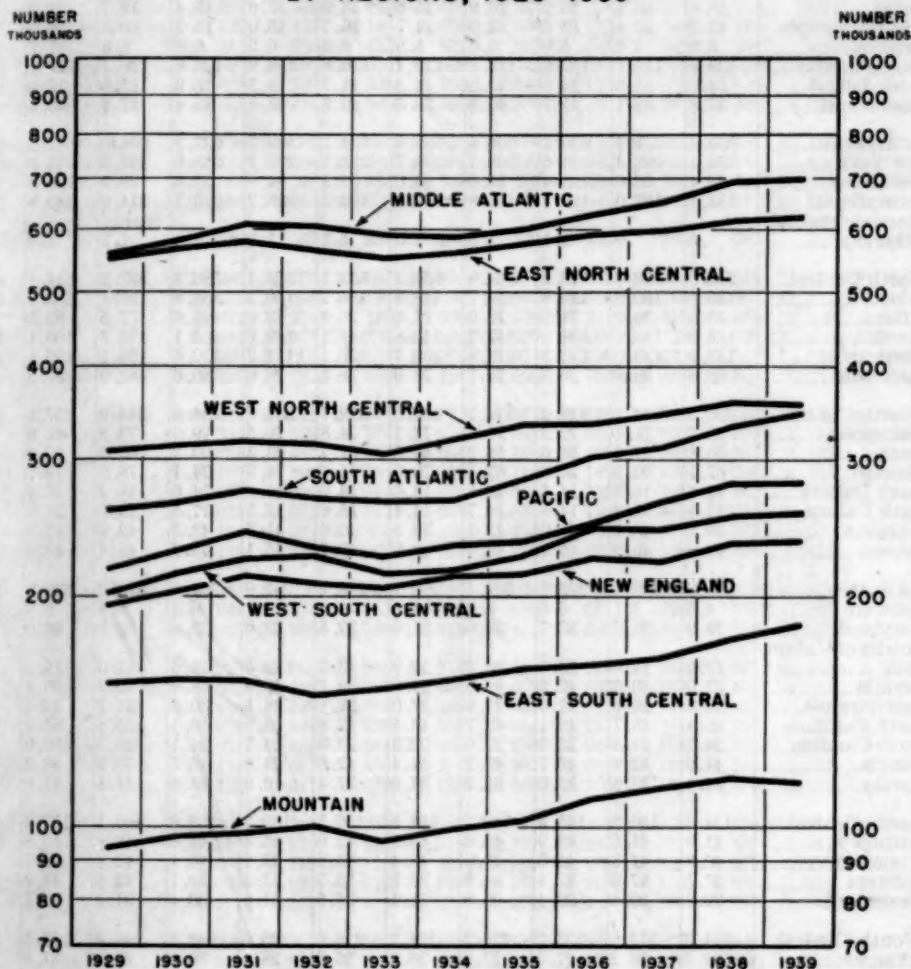
<sup>1</sup> See table 1, footnotes 1 and 3.

Local public-service enterprises were comparable in volume of employment and pay rolls to State educational undertakings, but required only about 5 percent of all local employment and pay rolls. The depression affected government enterprises more sharply than it did other local functions, but there was no basic difference in trend

nor were there any significant changes in the relative positions of the three functions.

CHART 3

### EMPLOYMENT IN STATE AND LOCAL GOVERNMENTS BY REGIONS, 1929-1939

UNITED STATES DEPARTMENT OF LABOR  
BUREAU OF LABOR STATISTICS

ESTIMATED

### Regional and State Comparisons

The discussion of regional differences is confined to State and local governments, as no distribution of Federal data by States has been made for the entire period under consideration.<sup>6</sup> Table 3 presents non-Federal employment and pay rolls in terms of monthly averages for each of the 11 years, by nine geographic divisions and by States.<sup>7</sup>

<sup>6</sup> Data showing Federal employment by States are available for December 1936, 1937, 1938, 1939, and for June 1941, July 1942, October 1943, and June 1944. See Monthly Labor Review, April 1942 (p. 919), November 1942 (p. 940), April 1944 (p. 730), and October 1944 (p. 728).

<sup>7</sup> Detailed tables showing figures by functions (general divisions, education, and public-service enterprises) for each State have been omitted here for lack of space, but will be included in reprints of this article.

TABLE 3.—Estimated Average Monthly Employment and Pay Rolls of State and Local Governments, by Geographic Division and State, 1929 to 1939<sup>1</sup>

Geographic division and State	Employment (in thousands)										
	1929	1930	1931	1932	1933	1934	1935	1936	1937	1938	1939
United States total.....	2,531.6	2,622.2	2,704.3	2,666.5	2,601.3	2,646.9	2,728.2	2,841.5	2,923.4	3,054.0	3,090.3
New England.....	194.7	201.9	210.2	207.7	204.2	211.7	213.2	224.4	221.3	233.9	234.8
Maine.....	15.9	16.4	16.2	16.9	15.6	16.9	17.0	18.4	19.7	21.9	22.5
New Hampshire.....	12.2	12.4	12.6	12.0	14.7	16.5	15.0	15.3	16.3	16.6	17.2
Vermont.....	5.9	5.6	5.9	6.0	5.8	6.5	6.5	6.8	6.6	7.7	7.9
Massachusetts.....	109.3	114.1	119.0	116.8	115.1	116.8	118.9	125.6	120.7	125.4	125.8
Rhode Island.....	13.6	14.3	14.8	15.2	14.4	14.7	14.7	15.9	15.6	17.0	15.9
Connecticut.....	37.8	39.1	41.7	40.8	38.6	40.3	41.1	42.4	42.4	45.3	45.5
Middle Atlantic.....	556.4	577.4	610.3	604.5	588.9	584.5	599.9	627.9	654.0	687.2	696.2
New York.....	279.4	288.5	306.6	308.1	299.7	291.1	297.5	318.9	337.3	353.5	358.6
New Jersey.....	93.4	96.0	103.4	99.6	95.0	93.2	94.9	97.6	99.9	100.8	104.5
Pennsylvania.....	183.1	192.0	199.2	195.8	193.2	199.1	206.2	210.1	214.9	230.8	231.0
Interstate special districts.....	.5	.9	1.1	1.0	1.0	1.1	1.3	1.3	1.9	2.1	2.1
East North Central.....	550.0	570.3	576.3	564.9	550.2	559.3	575.1	596.3	597.2	617.1	625.5
Ohio.....	139.6	150.9	149.6	151.7	148.8	156.2	159.1	154.4	158.4	163.7	168.2
Indiana.....	75.8	76.9	74.8	73.0	74.0	76.4	73.9	76.6	77.5	80.6	80.1
Illinois.....	149.9	148.6	154.3	147.7	143.8	144.1	149.9	155.1	155.3	160.1	165.0
Michigan.....	115.9	123.0	121.3	114.8	109.7	109.1	114.2	119.6	123.1	125.4	125.9
Wisconsin.....	68.8	70.9	76.3	77.7	73.9	73.5	78.0	80.6	82.9	87.3	86.3
West North Central.....	306.3	312.2	316.2	314.2	306.0	319.7	333.6	334.8	344.9	357.8	357.4
Minnesota.....	70.7	71.1	72.2	75.2	73.1	74.8	76.5	79.6	79.5	87.0	84.4
Iowa.....	56.8	57.2	58.0	58.2	54.5	57.7	63.3	60.3	62.3	62.8	62.7
Missouri.....	67.7	70.1	70.8	67.1	70.0	74.1	74.9	74.1	78.0	79.7	80.7
North Dakota.....	14.1	14.3	14.5	13.8	13.6	13.9	14.6	14.6	15.2	16.4	16.4
South Dakota.....	13.9	14.2	14.6	14.7	14.4	15.6	17.5	17.5	19.7	21.7	22.2
Nebraska.....	39.5	40.1	41.0	42.1	39.5	40.9	41.7	43.5	42.8	41.6	39.7
Kansas.....	43.6	45.2	45.1	43.1	40.9	42.7	45.1	45.2	47.4	48.6	51.3
South Atlantic.....	258.6	266.1	272.8	269.4	266.7	268.4	282.0	301.8	316.0	331.8	343.6
Delaware.....	4.9	5.1	5.6	5.7	5.8	6.1	6.1	6.3	6.4	6.8	7.0
Maryland.....	29.9	31.4	32.7	34.0	31.9	32.5	32.0	32.9	33.9	36.0	37.0
District of Columbia.....	11.0	12.0	12.7	13.2	12.9	13.2	13.5	13.6	13.6	14.1	14.6
Virginia.....	37.0	40.5	42.2	40.8	44.0	39.7	42.3	48.4	52.2	56.4	58.9
West Virginia.....	26.3	26.9	27.6	27.6	27.0	27.1	28.5	30.3	31.7	33.4	34.6
North Carolina.....	48.8	48.7	48.1	46.7	46.5	47.8	50.1	56.1	55.8	56.1	58.6
South Carolina.....	24.7	24.8	25.2	22.9	22.3	22.0	24.3	26.1	28.7	30.0	32.0
Georgia.....	41.9	42.9	43.7	43.2	41.4	42.6	44.8	45.5	49.6	53.2	53.0
Florida.....	34.1	33.8	35.0	35.3	34.9	37.4	40.9	42.6	44.1	45.8	47.9
East South Central.....	154.4	156.2	155.5	149.7	151.8	156.3	160.7	163.8	169.1	177.3	182.6
Kentucky.....	41.8	41.3	42.9	43.0	45.1	42.9	46.4	44.6	48.8	49.8	50.0
Tennessee.....	45.8	47.6	45.8	45.0	43.4	43.8	45.2	46.1	46.4	48.7	48.3
Alabama.....	37.5	37.9	37.4	34.9	32.2	33.7	37.5	39.7	42.5	44.7	46.7
Mississippi.....	29.3	29.4	29.4	26.8	31.1	35.9	31.6	38.4	31.4	34.1	37.6
West South Central.....	201.3	212.6	223.2	225.2	214.2	216.0	226.0	244.8	244.4	253.5	254.8
Arkansas.....	24.9	26.2	27.5	27.9	26.6	26.8	28.1	30.2	30.3	31.5	31.5
Louisiana.....	43.1	43.9	46.4	41.7	38.5	42.5	44.3	47.2	48.1	51.1	53.2
Oklahoma.....	42.4	47.0	50.3	54.9	53.1	45.4	46.9	53.4	51.4	54.7	51.8
Texas.....	90.9	95.5	99.0	100.7	96.0	101.3	106.7	114.0	114.6	116.2	118.3
Mountain.....	92.7	96.7	98.3	100.3	94.5	99.5	102.1	108.8	112.0	115.0	114.1
Montana.....	13.3	13.3	12.7	12.5	12.7	13.7	14.4	15.0	15.7	15.9	15.9
Idaho.....	10.9	11.7	11.7	11.9	10.2	11.3	12.5	13.7	14.0	15.0	14.5
Wyoming.....	6.1	6.3	6.3	6.3	5.9	6.5	6.9	7.4	7.6	7.9	7.6
Colorado.....	29.3	30.6	30.5	30.8	29.4	28.3	30.7	31.8	32.6	31.9	31.6
New Mexico.....	10.1	11.0	10.8	11.1	10.7	12.3	10.9	11.8	12.9	13.6	12.9
Arizona.....	8.0	8.4	9.3	8.8	8.2	8.5	8.7	9.4	10.0	10.7	11.3
Utah.....	11.9	12.3	13.7	15.6	14.2	15.5	14.5	15.6	15.3	16.1	16.4
Nevada.....	3.1	3.1	3.3	3.3	3.2	3.4	3.5	4.1	3.9	3.9	3.9
Pacific.....	217.2	228.8	241.5	230.6	224.8	231.5	235.6	248.9	264.5	280.4	281.3
Washington.....	41.4	42.6	43.0	41.6	39.8	41.4	42.0	44.8	48.9	50.5	51.0
Oregon.....	27.3	28.3	28.6	27.2	26.9	28.1	29.0	30.0	30.7	31.7	31.9
California.....	148.5	157.9	169.9	161.8	158.1	162.0	164.6	174.1	184.9	198.2	198.4

<sup>1</sup> See table 1, footnotes 1 and 3.



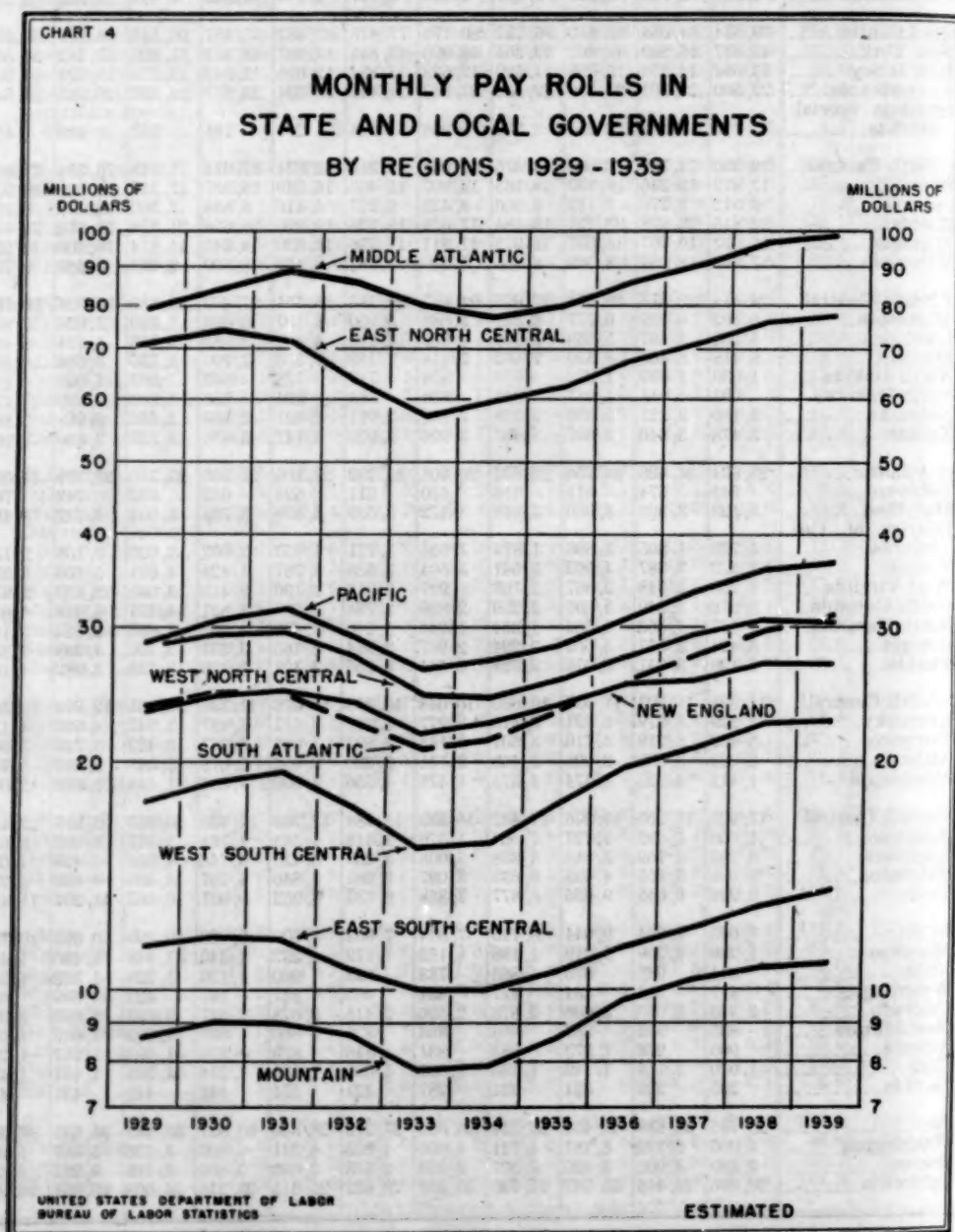
TABLE 3.—Estimated Average Monthly Employment and Pay Rolls of State and Local Governments, by Geographic Division and State, 1929 to 1939<sup>1</sup>—Continued

Geographic division and State	Pay rolls (in thousands of dollars)										
	1929	1930	1931	1932	1933	1934	1935	1936	1937	1938	1939
United States total...	292,658	307,310	312,265	291,221	265,524	266,064	281,266	301,858	320,193	342,902	348,077
New England	23,230	24,265	24,902	24,085	21,935	22,406	23,816	25,112	25,511	27,004	27,020
Maine	1,399	1,539	1,449	1,470	1,235	1,274	1,387	1,497	1,595	1,738	1,803
New Hampshire	1,122	1,139	1,143	1,098	1,124	1,283	1,229	1,245	1,326	1,356	1,457
Vermont	611	568	532	572	553	560	608	643	638	724	763
Massachusetts	13,897	14,537	15,054	14,563	13,311	13,471	14,573	15,306	15,160	15,847	15,745
Rhode Island	1,638	1,736	1,795	1,795	1,642	1,701	1,735	1,875	1,897	2,101	1,962
Connecticut	4,563	4,746	4,929	4,587	4,070	4,117	4,284	4,546	4,895	5,238	5,290
Middle Atlantic	79,834	84,088	88,810	86,732	80,176	77,416	80,582	85,457	90,146	96,801	98,513
New York	43,437	46,889	49,462	49,364	46,090	43,842	45,987	48,813	51,820	55,542	56,501
New Jersey	13,694	14,259	15,398	14,599	12,523	11,884	12,095	12,542	13,378	13,924	14,960
Pennsylvania	22,500	22,801	23,606	22,536	21,357	21,442	22,234	23,817	24,501	26,935	26,642
Interstate special districts	113	139	254	233	206	248	266	285	357	400	410
East North Central	70,930	74,788	72,665	63,676	57,904	59,318	62,924	67,014	71,028	76,584	77,869
Ohio	17,873	19,246	18,130	16,163	14,907	15,405	16,249	16,357	17,517	18,606	18,970
Indiana	6,912	7,270	7,182	6,900	6,428	6,227	6,416	6,884	7,300	8,177	8,199
Illinois	22,815	23,978	23,127	19,184	17,659	18,108	19,220	20,624	21,270	23,818	24,441
Michigan	15,692	16,207	15,657	12,975	11,311	11,796	12,620	14,340	15,674	16,300	16,524
Wisconsin	7,638	8,087	8,569	8,454	7,599	7,782	8,419	8,806	9,267	9,683	9,735
West North Central	28,414	29,413	29,651	27,975	24,687	24,583	25,551	27,402	29,159	30,921	30,767
Minnesota	6,362	6,529	6,777	6,391	5,688	5,950	6,197	6,694	7,339	7,926	7,856
Iowa	5,253	5,467	5,558	5,068	4,353	4,296	4,493	4,885	5,158	5,324	5,444
Missouri	8,118	8,406	8,350	7,862	7,118	7,159	7,356	7,790	8,135	8,599	8,502
North Dakota	1,030	1,039	1,012	976	854	743	778	862	953	1,040	940
South Dakota	993	1,011	1,017	953	839	785	894	958	1,085	1,239	1,223
Nebraska	3,180	3,321	3,330	3,258	2,839	2,711	2,691	2,883	2,930	2,983	2,895
Kansas	3,478	3,640	3,607	3,467	2,996	2,939	3,142	3,330	3,559	3,810	3,907
South Atlantic	23,634	24,426	24,756	22,692	20,906	21,232	23,106	25,360	27,710	29,779	31,033
Delaware	548	574	611	616	610	611	624	652	692	742	768
Maryland	3,523	3,805	3,960	3,848	3,472	3,539	3,570	3,704	3,933	4,232	4,480
District of Columbia	1,723	1,805	1,896	1,874	1,655	1,771	1,953	2,002	2,029	2,103	2,137
Virginia	3,572	3,887	4,002	3,541	3,504	3,538	3,787	4,424	4,891	5,156	5,378
West Virginia	2,260	2,348	2,367	2,168	1,997	2,012	2,190	2,413	2,645	2,856	2,974
North Carolina	3,918	3,849	3,695	3,259	2,806	2,781	3,237	3,821	4,171	4,439	4,644
South Carolina	1,537	1,560	1,584	1,354	1,244	1,240	1,439	1,602	1,855	2,021	2,149
Georgia	3,424	3,557	3,563	3,294	2,967	2,984	3,185	3,333	3,756	4,248	4,339
Florida	3,129	3,041	3,078	2,738	2,561	2,756	3,121	3,409	3,738	3,982	4,164
East South Central	11,303	11,703	11,637	10,660	10,044	10,099	10,578	11,336	12,061	12,992	13,345
Kentucky	3,379	3,379	3,521	3,315	3,277	3,237	3,511	3,487	3,947	4,097	4,112
Tennessee	3,492	3,719	3,716	3,501	3,143	2,892	3,025	3,277	3,422	3,726	3,864
Alabama	3,020	3,082	2,926	2,469	2,151	2,220	2,452	2,678	3,048	3,230	3,361
Mississippi	1,412	1,523	1,474	1,375	1,473	1,750	1,590	1,894	1,644	1,939	2,008
West South Central	17,925	18,955	19,346	17,432	15,339	15,784	17,763	19,730	20,940	22,287	22,488
Arkansas	1,600	1,692	1,727	1,564	1,376	1,418	1,545	1,764	1,877	1,997	2,019
Louisiana	3,593	3,762	3,946	3,358	3,008	3,253	3,420	3,748	4,066	4,428	4,680
Oklahoma	3,508	3,855	4,038	3,633	3,097	2,981	3,846	4,287	4,430	4,660	4,297
Texas	9,224	9,646	9,635	8,877	7,858	8,132	8,952	9,931	10,567	11,202	11,492
Mountain	8,603	9,034	9,044	8,715	7,844	7,953	8,600	9,620	10,295	10,695	10,702
Montana	1,269	1,269	1,219	1,198	1,152	1,179	1,232	1,349	1,448	1,480	1,480
Idaho	811	938	875	863	733	833	980	1,120	1,228	1,352	1,247
Wyoming	477	503	484	477	434	465	517	581	622	649	627
Colorado	2,940	3,050	3,036	2,876	2,596	2,415	2,678	2,937	3,093	3,053	3,097
New Mexico	835	883	887	864	804	825	806	899	1,002	1,049	1,036
Arizona	906	978	1,073	983	831	846	879	976	1,091	1,217	1,295
Utah	1,070	1,114	1,149	1,133	1,007	1,069	1,134	1,314	1,362	1,464	1,489
Nevada	295	299	321	321	287	321	374	444	449	431	431
Pacific	28,785	30,638	31,454	29,254	26,689	27,273	28,346	30,827	33,343	35,839	36,340
Washington	5,000	5,192	5,187	4,711	4,000	4,063	4,341	4,809	5,526	5,887	5,993
Oregon	2,889	3,000	3,020	2,807	2,359	2,578	2,690	2,800	3,148	3,261	3,400
California	20,896	22,446	23,247	21,736	20,330	20,632	21,315	23,218	24,609	26,691	26,947

<sup>1</sup> See table 1; footnotes 1 and 3.

Governmental employment trends were basically similar in all parts of the country from 1929 to 1939. No region changed its relative employment standing during the 11-year period, but States in the South Atlantic, Pacific, and West South Central regions showed rising trends appreciably sharper than those elsewhere (chart 3).

Pay-roll recovery from depression cuts was most striking in the South Atlantic and West South Central States (chart 4), and the South Atlantic group changed places with the West North Central by a narrow margin. It was to be expected that the regions which experienced rapid urban growth between 1930 and 1940 would show a relatively swift development in governmental activities.



Comparison of relative regional standings on charts 3 and 4 shows that the Middle Atlantic and East North Central States led in volume of employment and size of pay rolls, while the East South Central and Mountain States were last. The Pacific region, however, while fifth in employment, was third in size of pay rolls, displacing the West North Central and South Atlantic States; and New England, the seventh in employment, was sixth in pay rolls, displacing the West South Central group.

TABLE 4.—Average Monthly Employment, Pay Rolls, and Payment per Employee of State and Local Governments, by States, and Rank of States, 1939<sup>1</sup>

State	Average monthly employment		Average monthly pay rolls		Average monthly payment per employee	
	Number (in thousands)	State rank	Amount (in millions of dollars)	State rank	Amount	State rank
New York.....	358.6	1	56.5	1	\$158	1
Pennsylvania.....	231.0	2	26.6	3	115	12
California.....	198.4	3	26.9	2	136	5
Ohio.....	168.3	4	19.0	5	113	14
Illinois.....	165.0	5	24.4	4	148	2
Michigan.....	125.9	6	16.5	6	131	6
Massachusetts.....	125.8	7	15.7	7	125	7
Texas.....	118.3	8	11.5	9	97	22
New Jersey.....	104.5	9	15.0	8	143	4
Wisconsin.....	86.4	10	9.7	10	113	15
Minnesota.....	84.4	11	7.9	13	93	25
Missouri.....	80.6	12	8.5	11	105	19
Indiana.....	80.0	13	8.2	12	103	20
Iowa.....	62.7	14	5.4	15	87	30
Virginia.....	58.9	15	5.4	16	91	26
North Carolina.....	58.5	16	4.6	19	79	41
Louisiana.....	53.2	17	4.7	18	88	28
Georgia.....	53.0	18	4.3	21	82	37
Oklahoma.....	51.7	19	4.3	22	83	34
Kansas.....	51.3	20	3.9	25	76	42
Washington.....	50.9	21	6.0	14	118	10
Kentucky.....	50.0	22	4.1	24	82	36
Tennessee.....	48.4	23	3.9	26	80	40
Florida.....	48.0	24	4.2	23	87	29
Alabama.....	46.6	25	3.4	28	72	44
Connecticut.....	45.5	26	5.3	17	116	11
Nebraska.....	39.7	27	2.9	31	73	43
Mississippi.....	37.5	28	2.0	35	53	49
Maryland.....	37.0	29	4.5	20	121	9
West Virginia.....	34.6	30	3.0	30	86	31
South Carolina.....	32.0	31	2.1	32	67	45
Oregon.....	31.9	32	3.4	27	107	18
Arkansas.....	31.6	33	2.0	34	64	46
Colorado.....	31.6	34	3.1	29	98	21
Maine.....	22.5	35	1.8	37	80	39
South Dakota.....	22.2	36	1.2	43	55	48
New Hampshire.....	17.2	37	1.5	40	85	33
Utah.....	16.5	38	1.5	38	90	27
North Dakota.....	16.4	39	.9	45	57	47
Rhode Island.....	15.9	40	2.0	36	123	8
Montana.....	15.8	41	1.5	39	94	24
Idaho.....	14.6	42	1.2	42	85	32
District of Columbia.....	14.6	43	2.1	33	147	3
New Mexico.....	12.9	44	1.0	44	81	38
Arizona.....	11.3	45	1.3	41	114	13
Vermont.....	7.9	46	.8	47	97	23
Wyoming.....	7.5	47	.6	48	84	35
Delaware.....	7.1	48	.8	46	108	17
Nevada.....	3.9	49	.4	49	110	16

<sup>1</sup> Listed according to volume of employment. See table 1, footnotes 1 and 3.



Table 4 lists the States in order of their volume of governmental employment in 1939, and shows also their rankings in terms of average monthly pay rolls and the average monthly payment per employee.<sup>3</sup> The nine States with the largest number of employees (over 100,000 each) not only had the largest total pay rolls but, with three exceptions, made the largest payments per employee in an average month. Of the nine (New York, Pennsylvania, California, Ohio, Illinois, Michigan, Massachusetts, Texas, and New Jersey), all but California and Texas were highly industrialized in 1939, and all but Texas were also preponderantly urban. Together they employed an average of 1,595,800 persons to do their governmental work at all levels below the Federal, and paid out \$212,222,000 a month for the job. These figures represented 52 and 61 percent, respectively, of total average employment and pay rolls of State and local governments in 1939.

The average payment per employee per month in all 48 States and the District of Columbia ranged from \$158 in New York to \$53 in Mississippi. Half of the States made average payments greater than \$93—the median. The payments most frequently made were from \$80 to \$85. The top nine States ranged from \$158 in New York—just \$2 more than the average of \$156 in the Federal service—to \$97 in Texas.

A third of the States made higher payments per employee in 1939 than in 1929. The rest paid either the same or less in 1939. For all State and local governments the country over, the average (mean) was \$116 a month in 1929 and \$113 in 1939. The corresponding figures for Federal employees were \$162 and \$156.

Such wide variations in the size of the average pay roll per employee reflect State differences in population and also regional contrasts in urban concentration, industrialization, and wage levels. The extent to which part-time workers were used also affected the size of payments to the average employee. Urban development was perhaps the most important single factor in determining the size and character of State and local governmental operations in the period from 1929 to 1939, for in spite of growing State activities and the importance of county governments in some States, it was the cities and the special-purpose agencies serving them which provided most non-Federal public services. High wage levels have tended to develop with urbanization, which probably accounts for the relatively large volume of public pay rolls and high payments per employee in the Pacific Coast States and in three of the New England States—Massachusetts, Rhode Island, and Connecticut. Connecticut in particular illustrates this point, for in table 9 it ranks twenty-sixth in employment, seventeenth in total pay rolls, and eleventh in payments per employee.

### *Employment and Pay Rolls per Unit of Population*

Many of the contrasts just discussed arose from population differences. To eliminate the influence of size alone, the employment and pay-roll data are next considered in terms of equal population units, by taking the employment for each 10,000 inhabitants and the pay

<sup>3</sup> The phrase "payment per employee" is used because the figure obtained by dividing average monthly pay-roll aggregates by average monthly employment—for all non-Federal governmental agencies within a State—does not represent either wage rates or earnings for the employees concerned. Wage rates are significant only in terms of occupations. As for earnings, the underlying employment data include an appreciable number of part-time employees, most of whom have other sources of employment; and even full-time public employees may do other work on the side.

rolls per inhabitant. The totals for the country as a whole at the beginning and end of the period 1929 to 1939<sup>a</sup> were as follows:

Average monthly employment per 10,000 inhabitants:	1929	1939	Percent of change
Total.....	250	302	+21
Federal.....	44	67	+52
State.....	34	51	+50
Local.....	173	184	+6
Average monthly pay rolls per inhabitant: Total.....	\$3.09	\$3.70	+20
Federal.....	.71	1.05	+48
State.....	.37	.57	+54
Local.....	2.01	2.07	+3

Thus, for every 10,000 persons in the country in 1929 there were 250 public employees, and in 1939 there were 302. Of the latter, 184 were employees of local governments, 51 were State employees, and 67 were Federal. In 1929 the various governments spent an average of \$3.09 a month per inhabitant on pay rolls; they spent \$3.70 per inhabitant in 1939. Local pay rolls accounted for \$2.07 of the 1939 total, State pay rolls for \$0.57, and Federal pay rolls for \$1.05. Both total employment and total pay rolls per unit of population increased by one-fifth. This figure—rather than the 30-percent increase shown in table 1—is the real measure of the growth in governmental activity during the pre-war decade.

Table 5 shows, by geographic regions and States, detailed figures on State and local employment and pay rolls per unit of population for 1929 and 1939. As a group, the three Pacific Coast States ranked first in all respects. The sparsely settled Mountain States were second or third in employment, but fifth in pay rolls. The three Southern groups employed the smallest number of persons in relation to population, and spent least on pay rolls per capita. The higher wage levels of the Northern and Eastern industrial States were reflected in relatively high per capita pay rolls.

Although the ranks of individual States might well be shifted if the underlying estimates were developed from a larger sample, the general picture presented by table 8 may be considered reliable. High employment per unit of population was usually accompanied by high per capita pay rolls. The more urban and industrial States tended to pay at higher rates, and the States with low population densities tended either to pay at lower rates or to utilize a higher proportion of part-time and nominal workers.

Most of the States shared in the general increase in non-Federal activity as measured per unit of population. For the country as a whole, the rise was 14 percent in State and local employment and 11 percent in pay rolls. In several cases in which States lost in population over the decade (e. g., South Dakota, North Dakota, Kansas, and Oklahoma), the loss seems to have contributed to substantial increases in per unit employment and sometimes in per capita pay rolls also. Three factors help to explain these contradictory movements. First, population losses were largely from rural areas, causing an increase in the proportion of urban inhabitants and in the relative importance of city services. Second, governmental organization usually lags behind population change (whether upwards or downwards), so that contraction of services occurs more slowly than a decline in

<sup>a</sup> Figures for 1929 and 1939 are computed on the basis of the population in 1930 and 1940, respectively. The individual entries do not always add to the totals shown, because of rounding.

TABLE 5.—Average Monthly Employment per 10,000 Inhabitants and Pay Rolls per Inhabitant in State and Local Governments, by Division and State, 1929 and 1939

Geographic division and State <sup>1</sup>	Average monthly employment per 10,000 inhabitants <sup>2</sup>				Average monthly pay rolls per inhabitant <sup>2</sup>			
	1929		1939		1929		1939	
	Number	Rank	Number	Rank	Amount	Rank	Amount	Rank
United States total.....	206		235		\$2.38		\$2.64	
New England.....	238	3	278	2	2.84	3	3.20	3
Middle Atlantic.....	212	6	253	5	3.04	2	3.58	2
East North Central.....	217	5	235	6	2.80	4	2.92	4
West North Central.....	230	4	264	4	2.14	6	2.28	6
South Atlantic.....	164	8	193	8	1.50	7	1.74	7
East South Central.....	156	9	169	9	1.14	9	1.24	9
West South Central.....	165	7	195	7	1.47	8	1.72	8
Mountain.....	250	2	275	3	2.32	5	2.58	5
Pacific.....	265	1	289	1	3.51	1	3.73	1
Nevada.....	342	1	357	1	3.24	7	3.91	2
New Hampshire.....	263	8	350	2	2.41	16	2.96	13
South Dakota.....	200	29	345	3	1.43	40	1.90	37
Wyoming.....	275	6	303	4	2.11	27	2.50	23
Minnesota.....	276	5	302	5	2.48	15	2.81	15
Nebraska.....	287	2	301	6	2.31	20	2.20	28
Utah.....	234	16	299	7	2.11	28	2.71	19
Washington.....	265	7	293	8	3.20	8	3.45	6
Oregon.....	286	3	292	9	3.03	9	3.12	9
Massachusetts.....	257	10	291	10	3.27	5	3.65	4
California.....	261	9	287	11	3.68	1	3.90	3
Kansas.....	231	20	285	12	1.85	31	2.17	30
Montana.....	246	11	283	13	2.36	18	2.65	21
Colorado.....	283	4	281	14	2.84	12	2.76	16
Idaho.....	244	12	278	15	1.82	32	2.38	26
Wisconsin.....	234	17	275	16	2.60	14	3.10	10
Delaware.....	207	26	267	17	2.30	21	2.88	14
Connecticut.....	235	15	266	18	2.84	11	3.09	11
Maine.....	199	30	266	19	1.75	33	2.13	32
New York.....	222	24	266	20	3.45	3	4.19	1
North Dakota.....	206	27	256	21	1.51	37	1.46	41
Florida.....	232	19	253	22	2.13	25	2.19	29
New Jersey.....	231	21	251	23	3.39	4	3.60	5
Iowa.....	230	22	247	24	2.13	26	2.14	31
Ohio.....	210	25	244	25	2.69	13	2.75	18
New Mexico.....	238	14	242	26	1.97	30	1.95	36
Michigan.....	239	13	240	27	3.24	6	3.14	8
Indiana.....	234	18	233	28	2.13	24	2.39	25
Pennsylvania.....	190	33	233	29	2.35	19	2.69	20
Arizona.....	184	35	227	30	2.08	29	2.59	22
Louisiana.....	205	28	225	31	1.71	34	1.98	35
Rhode Island.....	198	31	223	32	2.38	17	2.75	17
Oklahoma.....	177	37	221	33	1.46	39	1.84	38
Virginia.....	153	43	220	34	1.47	38	2.01	34
District of Columbia.....	226	23	220	35	3.54	2	3.22	7
Vermont.....	163	39	220	36	1.70	35	2.12	33
Missouri.....	187	34	213	37	2.24	22	2.25	27
Illinois.....	196	32	209	38	2.99	10	3.09	12
Maryland.....	183	36	203	39	2.16	23	2.46	24
Texas.....	156	41	184	40	1.58	36	1.79	39
West Virginia.....	152	44	182	41	1.31	42	1.56	40
Kentucky.....	160	40	177	42	1.29	43	1.44	42
Mississippi.....	146	45	172	43	.70	49	.92	49
Georgia.....	144	46	170	44	1.18	45	1.39	43
South Carolina.....	141	48	168	45	.88	47	1.13	47
Tennessee.....	175	38	166	46	1.33	41	1.33	44
Alabama.....	142	47	165	47	1.14	46	1.19	46
North Carolina.....	154	42	164	48	1.24	44	1.30	45
Arkansas.....	134	49	162	49	.86	48	1.04	48

<sup>1</sup> States are listed in order of their rank of average monthly employment per 10,000 inhabitants in 1939.<sup>2</sup> Figures for 1929 and 1939 were computed on the basis of the population in 1930 and 1940, respectively.



population. Third, there is in every State a minimum of statutory offices and duties which must—barring legislative action—be maintained regardless of population shifts. With the last two factors, adjustment to declining demand for governmental services is likely to result in more part-time work and much employment which is nominal in character.

### *Post-War Implications*

The period 1929 to 1939 is of special importance in considering the post-war outlook for governmental employment because the long-term tendencies then in evidence will in all probability reappear after the war. War needs have sharply accelerated the upward trend in total public employment and pay rolls, expanding Federal work while retarding State and local development. Reappearance of the pre-war trend will mean curtailment of Federal activity and a spurt in State and local activities, resulting in, first, a sharp drop from the wartime volume, and then a resumption of the gradual upward course.

During 1944, State and local employment averaged 3,040,900<sup>10</sup> or about 2 percent less than the average for 1939, whereas Federal employment over the same period averaged 2,901,000—over three times the 888,400 in 1939. Federal pay rolls have grown more than proportionately, and total pay rolls at the State and local level, instead of falling with employment, have increased nearly 10 percent because of wage and salary adjustments.

The present high level of Federal activity will be much reduced as war needs disappear, so that some falling off in total public employment and pay rolls is to be expected in 1945 and 1946, and a substantial decrease during the first post-war years. Because of the underlying tendency, Federal employment is most unlikely to drop to the 1939 level, or even to fall as low as 1 million. Pay rolls will fall more sharply than employment if overtime provisions are eliminated and wage and salary levels remain unchanged. If a larger military establishment is maintained after the war than before, that in itself will be a factor tending to keep Federal civilian operations above pre-war levels.

State services have in general been curtailed for 3 years and may be expected to expand rather rapidly as soon as workers and materials are available. In particular, highway construction and repair work which has necessarily been postponed will give rise to a decided spurt in force-account construction activity. The movement of the 1930's for the organization of social insurance and health services has not yet reached its full development, and will continue to influence public activity at the State level especially. Hospitals and charitable institutions, which are now seriously understaffed, will try to improve their operating standards. Expansion is probably to be expected in the correctional field also, where institutional populations are now at a low point.

For local governments the picture is less clear-cut, but the trend, though not spectacular, should nevertheless be upward, because population increases and growing urbanization and industrialization

<sup>10</sup> Data represent estimates of the Bureau of Labor Statistics based on nonschool figures published quarterly by the Bureau of the Census, and on school figures reported to the Office of Education as part of the Biennial Survey of Education and in occasional special surveys.

will still require a greater volume of governmental work. Conflicting factors will operate in the first post-war years, with the net result of an early but relatively short spurt in local activity. The accumulated backlog of public works, for example, is substantial. Furthermore, some newly developed industrial centers will retain a substantial proportion of their present populations, so that the additional services which they have provided in makeshift and haphazard fashion will be permanently organized, and services which they have not had will be added. On the other hand, debt burdens and changing tax yields may not always permit great development in either plant or services, and many communities which have had to expand their public services, under the pressure of sharp wartime population increases, will tend to contract operations when populations have reshifted. The majority of local governments have probably been restricted in their activities by shortages of labor and materials, and will begin to restore the pre-war level of work and prepare for new growth. Local agencies should again supply the greater part of all public services, although their share of total governmental employment will probably be reduced—possibly to a half as compared with three-fifths in 1939. The rate of growth in local government activity is not expected to be so great as that of the States or the Federal Government, even though State and Federal expansion is likely to be less rapid than during the 1929 to 1939 period.

# Probable Volume of Post-War Construction <sup>1</sup>

## Part 1.—General Forecast and Its Controlling Background <sup>2</sup>

### Summary

THE forecast of post-war construction here presented is necessarily conjectural, as, although some basic conditions are now rather clearly apparent, others are less so, and still others have yet to be established. Either turbulent economic conditions, such as those immediately following the first World War, or a period of severe industrial conflict would produce construction activities quite different from those here predicted. Neither such development is expected, but neither is impossible. A period of boom psychology such as that of the later 1920's would increase the total volume greatly and shift the pattern markedly toward ambitious commercial projects. It is believed that this will not occur, but this too is not impossible. Similarly, public construction has been predicted on the basis of the public policy which seems likely, according to assumptions which are later stated. Policies either of drastic retrenchment in public construction or of expansion for the primary purpose of stimulating employment would obviously change the volume of this work greatly, with considerable influence on private work as well.

The average volume of work started annually is expected to be about 10.9 billion dollars per year, at 1940 cost levels, in the 5-year period following the end of the war, for new construction, additions, modernization and alterations, and major repairs of the type for which building permits are usually issued. Such work will probably be started to the extent of about 4½ billion dollars during the final phase of the war—i. e., against Japan only—which is assumed as 1 year. From this figure it is expected to increase to almost 8 billion dollars in the first post-war year, and to about 12 billion dollars in the fifth post-war year. In addition, maintenance and routine minor repairs are expected to amount to about 3.7 billion dollars in the last year before defeat of Japan, and to average about 4.4 billion dollars annually in the following 5-year period.

The largest single element in this volume of work will be nonfarm residential building, for which the expected average is about 900,000 new dwelling units per year with annual construction cost of 3.4 billion dollars.<sup>3</sup> Privately financed units will probably constitute about 95 percent of these. It is estimated that about 250,000 private units will be started during the final year of war against Japan only, although this number will be governed to a considerable degree by the time of year at which Germany is defeated. About 550,000 private units are expected to be started in the first year following defeat of Japan, and the number started will probably increase to about 1,040,000 in the fifth year.

<sup>1</sup> Prepared in the Division of Construction and Public Employment by Alexander C. Findlay; statistical tabulations prepared under the direction of Henry F. Haase.

<sup>2</sup> Two succeeding parts of this article will deal, respectively, with demand for private construction and demand for public construction.

<sup>3</sup> Like all other construction cost figures, except where otherwise noted, this has been converted to the 1940 level of construction costs. The estimate of an expected average volume of 900,000 dwelling units per year is to be distinguished from estimates of the construction rates required to meet housing needs within specified periods, made by the National Housing Agency and other organizations.



Private industrial construction including alterations during this period will probably be almost 700 million dollars per year, which is somewhat under three-fourths of the previous peak, and commercial construction at 1.2 billion dollars per year will be within about 12 percent of its 1929 peak. This will be quite unlike pre-depression commercial construction, however, with new work overshadowed by modernization and with few if any of the monumental commercial buildings for which the previous period of active commercial construction is best known. The significant although minor field of construction for nonprofit and community organizations, such as churches and voluntary hospitals, will increase substantially, but probably not to its pre-1929 levels.

Utility construction will probably be almost 1.15 billion dollars with construction for railroads the largest single group, followed by that for communications companies and for light and power companies. Other utility work will be considerably smaller.

New public work, according to the assumptions later stated, will be somewhat over a third of private work. The principal type of work will be highways, roads, and streets, with related structures, for which preparations are well advanced and for which financing will be available irrespective of considerations of resulting employment. States and local government bodies have a great volume of other work which they would like to carry out, but actual working plans are completed or in preparation for a considerably smaller program than that which has been estimated, and grants or loans will be needed in many cases to permit this preparation. For the most part financial preparation is likewise somewhat poor, and there are numerous indications that Federal aid will be commonly expected. It is therefore of primary importance that a decision on public policy be reached at the earliest possible date, in order that programs may be adjusted as necessary and, particularly, that a relatively dormant period while waiting for favorable Federal legislation may be avoided.

It is assumed that the post-war period proper will be preceded by a period of war against Japan only. For the purposes of this forecast this is assumed to be a year, although there are indications that it may be longer. During this period some degree of reconversion is likely to occur in building-material establishments, there will probably be an early and extensive relaxation of restrictions on the use of metals, and establishments requiring no real physical reconversion will be able to build up depleted trade inventories if materials and manpower are available. Maintenance and repair work, using proportionately little new material, will be the first activity to get under way. New residential building will expand from its low wartime level, but the volume of such construction will depend on the time of year at which Germany is defeated, and may vary between 175,000 and 350,000 dwelling units started. Commercial construction, both new work and modernization, is likely to be little above its earlier level during this final stage of the war. There will be industrial alterations for reconversion purposes, but less than after the defeat of Japan, and probably little new industrial construction except that useful for war production.

Estimated construction volume during this year of Pacific war and during the 5 years after the defeat of Japan is given in table 1.

TABLE 1.—Estimated Value of Principal Types of Construction To Be Started During Final War Year and First 5 Years Thereafter <sup>1</sup>

Type of construction and source of funds	Value (in millions of dollars)						
	Final war year <sup>1</sup>	First 5 post-war years					
		1st	2nd	3rd	4th	5th	Average
<i>New construction</i>							
Total new construction; including additions, alterations, modernization, and major repairs <sup>2</sup>	4, 460	7, 890	10, 870	11, 805	11, 900	12, 065	10, 924
Private construction	3, 045	5, 765	8, 015	8, 560	8, 545	8, 595	7, 896
Residential (nonfarm)	1, 250	2, 850	3, 900	4, 250	4, 300	4, 450	3, 950
New construction	1, 000	2, 300	3, 100	3, 400	3, 500	3, 700	3, 200
Additions, alterations, modernization and major repairs	250	550	800	850	800	750	750
Nonresidential	780	1, 530	2, 400	2, 550	2, 550	2, 450	2, 296
Commercial	275	750	1, 300	1, 350	1, 350	1, 250	1, 200
New construction	150	250	400	500	550	550	450
Additions, alterations, modernization, and major repairs	125	500	900	850	800	700	750
Industrial	375	500	700	750	750	750	690
New construction	175	300	400	450	500	550	440
Additions, alterations, modernization, and major repairs	200	200	300	300	250	200	250
Religious	50	100	150	175	175	175	155
Educational	25	60	75	80	80	80	75
Social and recreational	15	50	75	85	85	85	76
Hospital and institutional	30	50	75	85	85	85	76
Miscellaneous	10	20	25	25	25	25	24
Farm (residential and nonresidential)	325	425	525	550	550	500	510
Utility <sup>3</sup>	690	960	1, 190	1, 210	1, 145	1, 195	1, 140
Railroad	300	350	400	350	350	350	360
Local transit	15	25	40	45	45	45	40
Pipe line	25	25	25	25	25	25	25
Electric light and power	150	250	300	300	300	350	300
Gas	50	60	75	90	75	75	75
Telephone and telegraph	150	250	350	400	350	350	340
Public construction	1, 415	2, 125	2, 855	3, 245	3, 445	3, 470	3, 028
Highway, road, and street <sup>4</sup>	500	900	1, 200	1, 400	1, 500	1, 500	1, 300
Residential building	10	95	145	175	190	190	159
Nonresidential building	420	380	580	690	725	750	625
Educational	100	250	400	450	450	450	400
Hospital and institutional	35	45	70	80	90	90	75
Public administration	50	75	100	150	175	200	140
Commercial and industrial	225	0	0	0	0	0	0
Miscellaneous	10	10	10	10	10	10	10
Military and naval	200	100	75	50	40	40	61
Civil aviation	0	60	75	80	80	80	75
Recreation, conservation, and development	100	275	325	350	400	400	350
Water supply	75	110	140	160	170	170	150
Sewage disposal	75	125	200	225	225	225	200
Social and recreational <sup>5</sup>	15	50	75	75	75	75	70
All other Federal	5	10	15	15	15	15	14
Miscellaneous non-Federal	15	20	25	25	25	25	24
<i>Maintenance and minor repairs</i>							
Total maintenance and minor repair	3, 680	5, 070	4, 725	4, 265	4, 015	4, 015	4, 418
Private construction	2, 885	4, 005	3, 675	3, 330	3, 180	3, 180	3, 474
Residential buildings	1, 000	1, 500	1, 400	1, 300	1, 300	1, 300	1, 360
Nonresidential buildings	500	750	600	500	500	500	570
Farm	300	400	350	350	300	300	340
Utility	1, 085	1, 355	1, 325	1, 180	1, 080	1, 080	1, 204
Railroad	800	1, 000	1, 000	900	800	800	900
Local transit	50	75	70	60	60	60	65
Pipe line	15	20	20	15	15	15	17
Electric light and power	85	100	90	85	85	85	89
Gas	25	30	25	20	20	20	23
Telephone and telegraph	110	130	120	100	100	100	110

See footnotes at end of table.

TABLE 1.—*Estimated Value of Principal Types of Construction To Be Started During Final War Year and First 5 Years Thereafter*<sup>1</sup>—Continued

Type of construction and source of funds	Value (in millions of dollars)						
	Final war year <sup>2</sup>	First 5 post-war years					
		1st	2nd	3rd	4th	5th	Average
Public construction.....	795	1,065	1,050	935	835	835	944
Highway, road, and street.....	600	800	800	700	600	600	700
Building (residential and nonresidential).....	50	75	75	70	70	70	72
Reclamation, conservation, and development.....	50	75	70	65	65	65	68
Water supply.....	75	90	85	80	80	80	83
Sewage disposal.....	20	25	20	20	20	20	21

<sup>1</sup> Converted to 1940 cost levels.<sup>2</sup> Between defeat of Germany and defeat of Japan.<sup>3</sup> Additions, alterations, modernization and major repairs of the type for which building permits are usually issued are included with new construction except where listed separately.<sup>4</sup> Includes municipal and other publicly owned utilities except those constructed in conjunction with reclamation, conservation and development program.<sup>5</sup> Includes culverts, bridges, grade separations and other related work.<sup>6</sup> Includes buildings and nonbuilding construction.

### Scope and Methods of the Study

This forecast covers construction of all types within the United States during the period of war against Japan only, which is assumed to be a year in duration, and the 5-year period following the end of the war. It includes additions, alterations, modernization, and major repairs of the type for which building permits are usually issued and, as a separate group, routine minor repairs and maintenance work.

It is essentially an informed opinion based on information from a wide variety of sources and on analysis of controlling social and economic conditions. Information on scheduled or contemplated construction programs has been obtained through personal interviews and in reports from utilities, professional associations, architects, trade associations in a number of fields, officials of Federal agencies, financing organizations, institutional investors, and the architectural, engineering, building and financial press. Compilations of contemplated work, budgets and published reports of actual appropriations for public work issued by Federal, State, and local government units have been used. Interviews have been had with consultants in the construction plans of nonprofit and community organizations, and with promotional builders. Consideration has been given recent developments in building materials, methods, and in the case of residential work to major recent trends in job organization and management procedures. The past record of major types of construction by year from 1920 has been studied, along with the financial record of the various types of structures which were built. Trends in distribution and merchandising methods have been given attention, along with changes in social customs such as those still developing from widespread use of automobiles.



For the most part, post-war construction programs are highly tentative, including those of certain utilities and other firms long noted for careful planning of their capital-expenditure programs. Programs have been prepared by a number of public bodies, but with few exceptions these are schedules of work regarded as desirable and are dependent upon appropriation of necessary funds. Thus, a compilation of contemplated construction work, were it feasible, would not in itself indicate the volume to be expected.

No attempt has been made to prepare a strictly mathematical forecast, with volume computed from conditions which can be expressed numerically, because neither the techniques that could be used nor available data are satisfactory.

For convenience in comparison, all values have been converted to 1940 cost levels. The indexes used are not fully satisfactory, especially for years prior to 1935, and will be revised when there is opportunity for the special study involved. It is believed, however, that these revisions will not be great enough to change the significance of comparisons of given types of construction with the records of past years.

### *Construction Volume in the Past*

The volume of principal types of new construction, including additions and alterations and those major repairs for which building permits are usually issued, but not including maintenance and routine minor repairs, is shown in table 2, by years, from 1920 through 1943. These figures have been converted to the 1940 level of costs, within the limitations of the cost indexes used.

Prior to the war there were 5 years—1925 through 1929—in which the annual total of expenditure for construction exceeded 10 billion dollars. The peak for all types of construction came in 1927, but that for nonfarm residential building was reached in 1925, that for commercial 4 years later, and those for some of the utility classifications not until 1929 or 1930.

Although the pattern predicted for the post-war period differs substantially from that for the first few years in table 2, certain relationships will be the same. Of the large groups of new private construction, residential will rise fastest, just as it did about 25 years earlier. New commercial work will rise more slowly than residential building and also more slowly than it did in the past, but this will be outweighed by a rapid expansion of commercial modernization and major alterations, for which owners' plans are well advanced. Public work will increase rapidly, in contrast to its gradual increase for 11 years to its pre-war peak reached in 1931. This important difference from the development following the previous war will be the result of two major factors—increased general recognition of the value of certain kinds of public construction, notably reclamation and conservation work, and widespread realization of the importance of construction to total economy.

TABLE 2.—*Estimated New-Construction Expenditures in the United States*  
[Millions of dollars]

Type of construction and source of funds	1920	1921	1922	1923	1924	1925	1926	1927	1928	1929	1930	1931
New construction <sup>1</sup>	5,735	6,156	8,511	9,020	9,996	11,037	11,555	11,608	11,154	11,241	9,126	7,466
Private construction	4,729	4,780	6,854	7,642	8,385	9,137	9,626	9,438	8,863	8,983	6,407	4,641
Residential (nonfarm) <sup>2</sup>	1,578	2,151	3,711	4,099	4,891	5,084	5,036	4,679	4,278	3,786	1,964	1,753
Nonresidential <sup>3</sup>	1,809	1,662	1,811	1,735	1,694	2,182	2,609	2,654	2,603	2,987	2,356	1,501
Commercial	610	696	799	768	787	1,029	1,218	1,247	1,207	1,361	1,177	759
Industrial	967	603	506	510	422	487	637	632	682	942	590	247
Religious	59	94	147	136	149	195	210	211	197	182	158	124
Educational	24	43	86	96	105	128	127	124	124	147	151	141
Social and recreational	116	166	197	157	158	248	317	312	274	225	169	156
Hospital and institutional	33	60	76	68	73	95	100	128	119	130	111	74
Miscellaneous	0	0	0	0	0	0	0	0	0	0	0	0
Farm <sup>4</sup>	589	390	458	545	604	512	497	560	526	552	393	281
Utility <sup>4</sup>	753	577	874	1,263	1,396	1,359	1,484	1,545	1,456	1,658	1,694	1,106
Railroad	151	170	173	329	335	370	472	433	407	483	507	313
Local transit	67	54	84	67	51	49	49	72	85	78	83	74
Pipeline	41	29	51	60	74	61	40	91	62	112	35	94
Electric light and power	290	169	289	503	546	494	453	473	425	434	503	317
Gas	70	51	132	114	163	144	206	219	186	161	156	106
Telephone and telegraph	134	104	145	190	227	241	264	257	291	390	410	202
Public construction	1,006	1,376	1,657	1,378	1,611	1,900	1,929	2,170	2,291	2,258	2,719	2,825
Highway, road, and street <sup>5</sup>	329	517	576	474	602	704	719	836	954	970	1,237	1,233
Residential building	0	0	0	0	0	0	0	0	0	0	0	0
Nonresidential building	277	472	629	526	540	635	662	650	689	682	710	710
Educational	193	341	456	392	403	460	454	417	421	410	395	328
Hospital and institutional	33	50	80	62	68	70	77	88	118	106	122	147
Public administration	39	65	73	50	45	64	79	94	94	119	158	204
Commercial <sup>6</sup>	0	0	0	0	0	0	0	0	0	0	0	0
Industrial <sup>6</sup>	0	0	0	0	0	0	0	0	0	0	0	0
Social and recreational	12	16	20	22	24	41	52	51	56	47	35	31
Miscellaneous	0	0	0	0	0	0	0	0	0	0	0	0
Military and naval	157	59	34	18	10	10	13	14	17	21	33	50
Reclamation, conservation, and development	54	62	68	74	88	86	71	74	84	100	132	180
Water supply	83	120	157	128	175	170	163	162	137	147	240	209
Sewage disposal	65	93	122	102	122	155	160	204	214	148	169	152
All other Federal	1	1	3	2	1	1	2	4	12	15	11	12
Miscellaneous non-Federal (public service enterprises)	40	52	68	54	73	139	130	226	184	175	187	279

<sup>1</sup> Converted to 1940 cost levels; unless otherwise stated estimates include expenditures for new construction, and major additions and alterations, but exclude expenditures for repairs, maintenance, and work-relief construction. Estimates through 1938, except for farm construction, are from Bureau of Foreign and Domestic Commerce Series "Construction Activity in Continental United States."

<sup>2</sup> Includes repairs of the type for which building permits are usually issued, for 1929 and subsequent years.

### Rate of Expansion

The rate of expansion indicated by table 1 may seem high, but is entirely feasible. The maximum increments of previous expansion and the peak annual expenditures for each of the major types of construction are shown in table 3. The maximum past increments did not occur simultaneously. They did, however, in many cases occur when total construction activity was at or near a peak. The post-war expansion predicted will start from a very low level of total construction, when the industry is prepared to undertake additional work of all types.

States, by Type of Construction and Source of Funds, 1920-43<sup>1</sup>

[Millions of dollars]

	1932	1933	1934	1935	1936	1937	1938	1939	1940	1941	1942	1943	Type of construction and source of funds
1931													
7,466	4,947	3,235	3,617	4,297	5,905	6,293	5,827	7,019	7,602	10,627	12,625	7,196	New construction. <sup>2</sup>
4,641	2,562	1,824	2,106	2,724	3,710	4,302	3,721	4,425	5,053	5,819	3,223	1,990	Private construction.
1,753	919	567	719	1,117	1,614	1,715	1,820	2,478	2,659	2,973	1,344	674	Residential (nonfarm). <sup>3</sup>
1,501	874	706	766	799	1,135	1,461	930	901	1,159	1,444	817	477	Nonresidential. <sup>4</sup>
759	406	224	260	323	391	483	375	366	394	424	161	55	Commercial.
247	106	301	301	279	464	730	250	276	499	758	500	340	Industrial.
124	81	44	39	43	53	58	65	58	67	63	40	5	Religious.
741	81	30	60	64	98	55	55	41	62	48	21	26	Educational.
156	105	47	54	49	78	82	113	103	73	72	39	10	Social and recreational.
74	52	26	26	20	32	37	46	37	40	47	28	27	Hospital and institutional.
0	43	34	26	21	19	16	26	20	24	32	28	14	Miscellaneous.
281	170	236	263	413	433	485	454	539	570	643	485	405	Farm. <sup>5</sup>
1,106	599	315	358	395	528	641	517	507	665	759	577	434	Utility. <sup>4</sup>
313	174	115	150	136	168	212	127	146	167	176	168	188	Railroad.
74	36	26	35	47	51	42	44	37	34	19	9	10	Local transit.
94	50	10	14	23	48	69	22	52	78	62	43	32	Pipeline.
317	159	68	66	85	122	153	179	130	193	239	150	102	Electric light and power.
106	67	37	37	42	63	60	49	45	70	80	62	46	Gas.
202	113	59	56	62	76	105	96	97	123	183	145	56	Telephone and telegraph.
2,825	2,385	1,411	1,511	1,573	2,285	1,991	2,106	2,594	2,549	4,808	9,402	5,206	Public construction.
1,233	1,075	652	699	553	757	766	824	780	819	691	442	231	Highway, road and street. <sup>3</sup>
0	0	0	1	11	72	96	36	67	199	413	495	622	Residential building.
710	588	262	252	319	645	483	587	858	519	1,512	3,487	1,824	Nonresidential building.
328	192	60	100	136	339	233	290	436	133	127	55	61	Educational.
147	109	48	41	37	71	65	81	121	56	28	20	32	Hospital and institutional.
204	258	136	52	89	152	116	130	181	100	49	26	9	Public administration.
0	0	0	12	10	15	18	22	27	28	15	7	4	Commercial. <sup>6</sup>
0	0	0	11	5	4	4	14	23	164	1,264	3,366	1,705	Industrial. <sup>6</sup>
31	29	18	26	31	53	41	41	48	17	15	6	4	Social and recreational.
0	0	0	10	11	11	6	9	22	21	14	7	9	Miscellaneous.
50	51	50	57	46	34	38	64	138	385	1,537	4,467	2,110	Military and naval.
180	214	239	300	302	395	315	301	317	311	353	306	204	Reclamation, conservation, and development.
209	134	67	76	85	109	81	92	123	62	47	32	54	Water supply.
152	106	48	66	84	135	98	91	138	87	64	51	25	Sewage disposal.
12	9	6	10	10	8	10	15	20	35	42	46	0	All other Federal.
279	208	87	50	73	130	104	96	153	132	149	76	136	Miscellaneous non-Federal (public service enterprises).

<sup>1</sup> Farm construction estimated by Bureau of Agricultural Economics, U. S. Department of Agriculture; includes maintenance and minor repairs.<sup>2</sup> Privately owned utilities only.<sup>3</sup> Includes culverts, bridges, grade separations and other related work.<sup>4</sup> Included with privately financed commercial and industrial construction up to 1934.

The grand totals shown in this table establish a limit for what may reasonably be expected. They would be the maxima for the past if the greatest rate of increase had occurred simultaneously for all types of construction, and if greatest volume had been reached in the same year for all types.

In almost every respect the United States is better prepared for sound expansion than after the previous war and in the 1920's. The construction industry itself is more mature. The home-mortgage system is incomparably more satisfactory from the standpoint of both borrowers and lenders, and has provided useful minimum standards of construction and environment. Promotional builders following accepted business-management practices are much more prominent in the field than 25 years ago, and are likely to increase in prominence



with the passage of time. Although the financing machinery for shoestring rental operations was destroyed by the depression, financing for responsible operators in certain classes of rental housing has since been provided and rental housing is now recognized as a field for direct institutional investment. Financing of large commercial projects is more difficult, but should not prevent construction for which there is sound economic need.

Planning of post-war work, except for highways, is not so far advanced as it should be to assure a maximum rate of expansion. It is nevertheless well ahead of the situation at the end of the previous war, and seems likely to be improved materially before this war is over.

TABLE 3.—*Greatest Year-to-Year Increment and Maximum Annual Expenditure for Specific Types of New Construction, 1920-40*<sup>1</sup>

Type of construction and source of funds	Greatest year-to-year increment		Maximum annual expenditure	
	Amount (in millions of dollars)	Years	Amount (in millions of dollars)	Years
Total new construction <sup>2</sup> .....	4,603	( <sup>3</sup> )	14,047	( <sup>3</sup> )
Private construction.....	3,081	( <sup>3</sup> )	10,713	( <sup>3</sup> )
Residential (nonfarm).....	1,560	1921-22	5,084	1925
Nonresidential.....	732	( <sup>3</sup> )	3,180	( <sup>3</sup> )
Commercial.....	242	1924-25	1,361	1929
Industrial.....	266	1936-37	967	1920
Religious.....	53	1921-22	211	1927
Educational.....	43	1921-22	151	1930
Social and recreational.....	90	1924-25	317	1926
Hospital and institutional.....	28	1926-27	130	1929
Miscellaneous.....	10	1937-38	43	1932
Farm.....	150	1934-35	570	1940
Residential.....	60	1934-35	250	1940
Nonresidential.....	90	1934-35	320	1940
Utility.....	639	( <sup>3</sup> )	1,879	( <sup>3</sup> )
Railroad.....	156	1922-23	507	1930
Local transit.....	30	1921-22	85	1928
Pipeline.....	59	1930-31	112	1929
Electric light and power.....	214	1922-23	546	1924
Gas.....	81	1921-22	219	1927
Telephone and telegraph.....	99	1928-29	410	1930
Public construction.....	1,522	( <sup>3</sup> )	4,234	( <sup>3</sup> )
Highway, road, and street.....	309	( <sup>3</sup> )	1,329	( <sup>3</sup> )
State.....	155	1929-30	647	1931
County.....	88	1920-21	259	1931
Municipal.....	66	1924-25	423	1930
Residential building.....	132	1939-40	199	1940
Nonresidential building.....	487	( <sup>3</sup> )	1,135	( <sup>3</sup> )
Educational.....	203	1935-36	460	1925
Hospital and institutional.....	40	1938-39	147	1931
Public administration.....	63	1935-36	258	1932
Commercial.....	5	1935-36 1938-39	28	1940
Industrial.....	141	1939-40	164	1940
Social and recreational.....	22	1935-36	56	1928
Miscellaneous.....	13	1938-39	22	1939
Military and naval.....	247	1939-40	385	1940
Reclamation, conservation, and development.....	92	1934-35	418	( <sup>3</sup> )
Bureau of Reclamation.....	15	1934-35	74	1939-40
Corps of Engineers.....	45	1934-35	226	1936
Tennessee Valley Authority.....	14	1933-34 1934-35	38	1936-40
Other.....	18	1934-35	80	1935
Water supply.....	93	1929-30	240	1930
Sewage disposal.....	51	1935-36	214	1928
All other Federal.....	15	1939-40	35	1940
Miscellaneous non-Federal.....	96	1926-27	279	1931

<sup>1</sup> Converted to 1940 cost levels.

<sup>2</sup> Includes additions, alterations, modernization, and major repairs of the type for which building permits are usually issued.

<sup>3</sup> Year-to-year increments or annual expenditures making up this total were not simultaneous.

### *Basic Conditions Governing Post-War Construction*

The post-war construction program will be conducted in an environment of economic, social, and technical conditions by which its character will be largely determined. Some of these can be predicted with a rather high degree of certainty because of their intrinsic nature, and others can be predicted with reasonable confidence because of the unmistakable direction of the forces active. Still others must be more or less arbitrarily assumed, to establish a frame of reference; these are presented in the section on page 272.

#### DESIGN AND PHYSICAL ENVIRONMENT

It cannot be emphasized too strongly that in design and construction post-war structures will resemble very closely the pre-war structures for the same purposes. Development is occurring, and some experimental or pioneering operations will influence designers, but this has been the case in the past and has led to varying rates of evolution in design. "Miracle houses" and miracle structures of other types are not to be expected.

Functional requirements for structures of various types will be unchanged, although recognition of their relative importance is changing in some instances. An example is the greater emphasis being given to facilities for customer circulation in retail stores, which is changing the details of design but having slight effect on the basic structures. Family living habits, housekeeping operations, and social customs may change somewhat, but not sufficiently to have a material effect on space requirements in proportion to family size. Trailers and other extremely compact dwelling units have filled a useful place under emergency conditions, and no doubt will be useful under similar conditions in the future. No indications are apparent as yet, however, that units of this type are generally regarded as satisfactory for permanent occupancy. Instead, recent market studies show a widespread desire on the part of potential home buyers for more space than has been provided in wartime houses. Replies in these studies have emphasized a strong desire for larger rooms.

Structures of any type, including dwelling units, require an environment of community services and facilities. Where density of population is great, this environment must be fairly complex. Health requires public water supply and sewage systems, hospitals, and clinics; convenience requires electric service and probably gas, paving, and local retail and service establishments; elementary social standards require schools, churches, park and recreation areas and organizations, etc. All of these requirements mean that some stable system of community organization is necessary, plus some stable relationship between dwelling units and community. That entails permanent attachment of dwelling units to land. Purchase of dwelling units which can be moved with any change of employment will no doubt continue to some degree, but such units are most unlikely to constitute more than a trifling percentage of the total.

#### MATERIALS AND CONSTRUCTION METHODS

Materials likewise will be essentially the same as before the war, though development has occurred and is continuing. Greater use

may be expected of certain materials introduced within recent years, and there are strong indications that other new materials will be introduced. Specifically, it seems almost certain that panel boards (plywood, panels made from various fibrous materials, and those made from inorganic materials) will be more prominent, and it is quite probable that war-expanded capacity for production of light metals may lead to considerable increase in their use in construction. These developments, however, are minor in relation to the pattern of materials as a whole and are altogether comparable to past evolution in the field. Costs of materials and of equipment for processing, as well as other considerations, make unlikely the actual realization of the quite common prediction that walls, partitions, and other major elements will be molded from plastics or that other such drastic changes will occur. Plastics will fill a useful place, more prominent than in the past but still minor. They will be employed as ornamental elements, as a thin coating to improve appearance and wear-resistance of plywood and other panel boards, and in other supplementary applications. At the same time, metals will replace them for many of the wartime uses in which they were emergency substitutes. Ultimately their range of usefulness in construction may be increased considerably by technical developments, but it is difficult to picture conditions under which they would become important load-bearing materials. In the latter field, changes are to be expected from development work in treated wood, rather than in plastics.

For at least a generation, the trend in buildings of all types has been toward more extensive use of mechanical equipment and a higher degree of its development. This trend will certainly continue, but will continue to be limited by considerations of cost. Almost without exception mechanical items introduced at prices limiting their use to the luxury market have been progressively reduced in price. A long-time downward trend may be expected, compared to the prices for other parts of the buildings, for such equipment items as air-conditioning systems. Nevertheless, it must be recognized that such highly fabricated items of equipment represent many man-hours of manufacturing labor under any circumstances, in addition to the labor of installation. They must therefore constitute an appreciable element of the cost of those buildings in which they are used, and will not be used within the near future in mass-market houses or similar buildings.

Construction methods have also undergone a long and gradual evolution. Off-site processing has increased, with site work consisting less of fabrication and more of installation. Fabrication at the site has been segregated to an increasing degree; cutting and other processing are carried out at temporary shops and followed commonly by installation by another group of workmen. Greater attention has been given to scheduling of materials and of material flow, to timing of operations, and to organization of the work between specialized gangs to reduce waste motion and lost time. Machinery for site processing of materials, especially lumber, has been improved greatly within recent years, with the result of much more widespread adoption. All of these developments may be expected to continue.

Off-site fabrication of processed materials into panels for floors, walls and other major elements of houses, although known for many years, was quite limited in extent prior to the war. Wartime conditions expanded this division of the construction industry tremendously.



Numerous firms have pursued programs of design and development work, and have made concrete plans for post-war operation. Other firms having existing plants which could be used have entered the field only on the basis of contracts for individual housing projects, and on the whole have made little preparation for continuance under post-war conditions.

A considerable increase over pre-war volume may be expected for these operations, but here again drastic changes in the general pattern of the industry seem unlikely. Transportation of panels or sections of houses is both more difficult and more expensive than that of bulk building materials. Manufacturing economies are reduced when great variety must be provided for a large number of individual purchasers. Panels and sections are not well suited to extensive inventory storage, and their manufacture must therefore be dovetailed quite closely with erection. A study now in progress is sufficiently advanced to indicate that most of the prefabricators have operated quite successfully with ingenious but simple and inexpensive plant facilities, and that it is exceedingly doubtful whether the additional advantages of an elaborate plant outweigh the additional complications. Problems of site acquisition, site planning, and project planning are enormous for nation-wide operation of any firm, on a scale sufficient for erection of thousands of structures a month. Consequently forecasts of such operations, with production concentrated in enormous plants for distribution throughout the country, must be accepted with great reservation. It is much more likely that production on a moderate scale and with fairly extensive variety will occur, probably with some of the firms operating or licensing a number of such plants in different parts of the country, and with distribution to promotional builders as well as individual buyers.

A less striking but highly important development is that of the more extensive off-site processing of materials, including assembly in some cases. Among the many steps in this direction may be cited the manufacture of shower stalls which need only to be fastened in place and connected to supply and waste lines (introduced about 20 years ago), the factory fitting of doors (including mortising for locks and routing for hinges when desired), and the factory finishing of wood flooring to eliminate sanding, filling, and varnishing after laying. Further developments having the same purpose of reducing site operations, and a more widespread adoption of the new products, may be expected.

The rate of change will be irregular, however, and in many cases specific changes are likely to require agreements between contractors and the building-trades unions affected.

Productivity of workers will increase somewhat from pre-war and also from wartime levels. The elements of increased mechanization and better planning of work have been mentioned. Availability of materials will remove the difficulties and delays occasioned by use of some of the wartime substitutes. Ending of wartime labor shortages will mean higher average competence, when it is no longer necessary to employ those seriously lacking in skill.

It can certainly be expected that overtime work will be greatly reduced. Overtime is likely to be important mainly for such rush work as commercial modernization which is commonly performed during operation of an establishment. At the same time, it seems

almost certain that the wartime modifications of overtime premiums will be terminated. Total overtime work will be small, but the cost for that which is necessary will be high.

#### FINANCING OF CONSTRUCTION

The Federal Housing Administration procedure for residential mortgage lending will certainly be continued, probably with some minor changes. The advantages of this system to borrowers, promotional builders, and lenders, have been generally recognized, and there is every indication that attempts to abolish it will be unsuccessful. No significant change in interest rate seems likely in the period here considered. Although the long-range trend is unquestionably downward as risk is reduced with greater stability of neighborhoods and higher construction standards, this is not expected to be effective in the early post-war years. Inquiry among institutional investors indicates that they are unlikely in the near future to lower the return of about 3½ percent currently regarded as the minimum acceptable on direct investment in construction projects.

#### URBAN REHABILITATION

Although urban rehabilitation is an urgent need, no extensive start can be expected for a number of years. There will be numerous specific projects fitting into master city plans—housing, civic and community facilities, and other—including a few projects constructed with private funds; these must be regarded as individual undertakings only. Urban rehabilitation as generally understood, and as it is likely to occur ultimately, means work of an altogether different order of magnitude—demolition, rearrangement of streets and utilities, and changes in land use, on a scale sufficient to produce major changes in the patterns of whole cities.

Obviously the problems to be solved before any real start can be made on such efforts are tremendous. Ultimate solution requires new financial mechanisms, new legislation, and changes in basic attitudes toward relationships between individual properties and integrated neighborhoods. Numerous procedures have been proposed for dealing with the problems, which cannot be discussed here. Although some of these have high merit, a fairly long period must be expected before any can attain the widespread public acceptance necessary for general adoption. Hence, within the next few years only limited progress can be anticipated including, probably, a few small-scale demonstration projects.

#### *Basic Assumptions of Forecast*

The conditions stated below are assumed as a basis for the estimates here given, and are not in any sense either recommendations or forecasts. Should they not be met, actual construction volume will be affected correspondingly.

It is assumed herein —

1. That construction wage rates will be not less than current rates, and not more than 5 percent above current rates, except for those workers included in annual wage agreements, and that differentials in

wage rates between housing and other building, and between maintenance work and new construction, will be the same in amount and in geographical coverage as at the start of the war.

2. That no substantial changes will be made in the normal work week and in overtime premiums from those in effect at the start of the war.

3. That no substantial price increase will take place for any major building material, but that, rather, the price level for building materials as a whole will be reduced by about 5 percent within 2 years from the end of the war. These assumptions are based on strong indications of active competition between established producers and new producers for many of the fabricated metal products, and between producers of different types of products serving the same ultimate purpose.

4. (a) That Federal construction policy will be to proceed with projects desired for the value of the completed facilities, but not to proceed with any projects for the primary purpose of providing employment. (b) That Federal grants for State and local projects will be made where the purposes to be served, exclusive of the provision of employment, are accepted as contributing to national welfare. (c) That there will be no grants for projects the benefits of which are almost exclusively local or for the production of revenue, but that a procedure will be established for Federal loans for approved revenue-producing projects, such as improvements to water facilities, municipal transit systems, etc.

5. That FHA underwriting will not be provided for commercial construction, and that Federal grants will not be provided for private construction of any type.

6. That corporation income tax will be reduced by half and excess-profits taxes eliminated on the completion of the war, and that the individual income tax will be reduced by a third, with this latter reduction consisting in part of reduction in the higher surtax rates, and in part of increases in personal and family exemptions.

7. That the so-called "tax incentive plan" will be rejected. Under that plan, investment in certain proposed organizations or enterprises (particularly agencies to buy blighted properties and demolish the structures in preparation for rehabilitation, and agencies to construct low-rent housing on the vacated land) would be made an allowable deduction from the income of the investors before computation of their income taxes.

### *Effective Demand for Construction*

Except possibly for a few months immediately after the end of the war, the volume of post-war construction will be established by the customary mechanism of effective demand. The capacity of the industry has been estimated at 11 billion dollars per year at 1940 prices, to be reached a year after defeat of Japan,<sup>4</sup> and thereafter is subject to such expansion as may be necessary. It may reasonably be expected that Government controls will be modified and then removed as severe shortages resulting from the war effort are overcome. Supply

<sup>4</sup> See Post-war Capacity and Characteristics of the Construction Industry, in Monthly Labor Review, May 1944; also published (with additional data) as Bulletin 779 of the Bureau of Labor Statistics.



considerations and capacity of the industry will therefore restrict volume for a few months only, if at all.

During the period under consideration, construction work of almost every type will be needed for a great variety of different uses. Much of this work will be carried out, but other parts will not be. In each individual case there will be opposing forces, some tending to cause the owner to proceed and others tending to cause him to postpone or cancel the undertaking. His decision will be governed as in the past by whether the expected advantages outweigh the disadvantages, in his individual circumstances and according to his own evaluation of the pertinent factors and of their relative importance.

Intangible, but of the greatest importance, are the complex psychological factors commonly grouped together under the phrase, "public confidence" or "business confidence." It has been a matter of common observation in the past that these had a great effect on the rate of construction and of other capital formation. No analysis of these factors is attempted. If they should move toward either marked optimism or marked pessimism during the period covered, the volume of work started would be changed accordingly.

#### PRIVATE RESIDENTIAL BUILDING

By far the greater part of private residential construction consists of houses built for sale. Initiation of such housing is governed mainly by whether there seems to be a profitable market. If it seems likely that houses are salable at a price yielding a satisfactory profit after meeting cost of land, construction and overhead expense, construction will proceed. The builders normally expect that their financial interest in the houses will end with their sale shortly after completion. Consequently, long-range considerations of future construction cost, probable developments in design or equipment, permanence of the local housing need, etc., usually receive little attention in themselves, apart from that given to their expected effect on selling conditions.

Families buying houses, or building for their own occupancy, are guided by different considerations. Ordinarily home ownership is regarded as a desirable end in itself, to be sought if family prospects of continued residence in a locality and continued income from employment or other sources make it seem feasible. In most cases purchase or construction of a house is the largest single commitment in a family's existence, for which payments must be spread over many years, and it is entered into with corresponding care. Each family has certain minimum requirements or expectations in a permanent home, which must be met if the purchase is to be made. There is some comparison of the costs of ownership with those of renting, and very careful attention to the down payment required. There is some interest in the trend of construction costs. When public expectations are high regarding new developments in building and home equipment, there is consideration of the likelihood of greater comforts and conveniences within the near future, proceeding in some cases to speculation about early obsolescence of houses without the new features. Finally, in a great many cases there is weighing of the choice between making a down payment on a house or purchasing other durable goods, such as an automobile, furniture, or household appliances.

Those building for investment are likewise guided by long-range considerations, but their thinking is much more financial in nature. The basic questions are whether probable net return exceeds the minimum acceptable rate, whether risks seem to be within an allowable limit, and whether available funds are sufficient for the equity investment needed. These questions mean consideration of expected trends in construction-cost levels and rental levels, and this latter of course necessitates consideration of local population and employment. Although investment construction has characteristically been residential, a considerable part has been for commercial and other non-residential purposes.

#### INDUSTRIAL AND COMMERCIAL CONSTRUCTION

Companies erecting commercial, industrial, or utility structures for their own use ordinarily do so because they believe that increased operating profit made possible by new space will exceed all capital, maintenance, and operating costs. This profit may come from increased volume of business, or a new type of activity for which old space was unsuitable, or reduced operating cost. In some cases the investment in construction is for protective purposes—to insure continuance or permit rehabilitation of a going business for which the existing physical plant has become unsuitable. In any event, the level of construction and financing costs is of primary importance.

#### CONSTRUCTION BY NONPROFIT ORGANIZATIONS

For the various nonprofit and community organizations using physical plant—churches, voluntary (i. e., nonprofit private) hospitals, recreation agencies, and agencies offering institutional care—the problem of construction of desired facilities usually becomes that of raising the necessary funds and of being able to assume the additional annual obligation for debt service and for operation of the new plant. If the construction is to replace an obsolete building, there may be no increase in operating cost and in some cases there may even be a reduction because of a higher grade of structure better suited to the use. Since construction is usually financed by a special campaign for funds, ordinarily the decision to build or remodel is not complicated by considerations of other uses for the money. The conditions most favorable for such campaigns are a high level of business in combination with high income-tax rates, both of which are now present and seem likely to be maintained in the post-war period sufficiently to facilitate this type of undertaking.

#### PUBLIC CONSTRUCTION

Construction by public bodies financed by tax funds is largely a matter of public policy. The purpose sought is the better performance of some function accepted as a public responsibility. Decision to proceed with any specific project is governed therefore by the extent of recognition of its individual value and the numerous financial considerations present. Cash on hand, existing bonded debt, debt limit, effect of the project on the operating budget and the debt service budget, acceptability and collection prospects for special assessments and grants from a larger political unit all affect the decision.

The foregoing considerations are not by any means exhaustive, but are merely an indication of some of the principal factors present.

# Occupational Outlook

## Employment Opportunities for Diesel-Engine Mechanics<sup>1</sup>

### Summary

THE post-war demand for mechanics to service Diesel engines can be adequately supplied from the relatively large number of experienced engine mechanics who will be available. The value of Diesel training for persons without mechanical experience is therefore definitely limited. Experienced mechanics considering transferring to Diesel maintenance, and mechanics already employed by firms using or servicing such engines, may in some instances profit by brief training courses to become familiar with the special characteristics of these engines.

These are the chief conclusions drawn from an analysis of the post-war labor market for Diesel mechanics, despite the rising trend of sales of the engines in pre-war years and the favorable prospects for a continued expansion of their utilization in the post-war period. Although its importance is increasing, the Diesel engine now constitutes and will probably continue to represent only a small proportion of total engines in use. Because of its general similarity to other internal-combustion engines, mechanics experienced in maintaining other types of engines can transfer their skills to its servicing with relatively little difficulty.

Companies replacing other types of engines with Diesel engines have usually met their maintenance requirements by shifting mechanics already employed in servicing the displaced engines, rather than by hiring Diesel specialists. This employment policy is often reinforced by the seniority provisions of labor contracts. In the situations in which entirely new job openings result from the extension of Diesel-engine use, mechanics experienced on other engines have generally been preferred over inexperienced job applicants who have Diesel training.

### *Nature and Importance of the Occupation*

In recent years the Diesel engine has been considered by many to represent one of the outstanding new fields of employment opportunity opened by technical innovations. The relatively rapid expansion in the sales of Diesel engines during the decade of the 1930's and their adoption for new uses, such as with tractors, in trucks and in busses, encouraged this view. Advertisements by schools offering

<sup>1</sup> Prepared in the Bureau's Occupational Outlook Division by Frank Dischel under the supervision of Richard H. Lewis.



training stimulated interest in the vocational opportunities that would be created by the increasingly wide acceptance of Diesel power. The importance of these engines during the war, as measured by the heavy requirements of the armed forces, has caused a renewed interest in the post-war prospects for jobs in the Diesel field.

Information on the job openings that would be created by post-war expansion in the use of these engines is needed by young people without experience who are considering the value of this special training in improving their employment opportunities, by mechanics who wish to supplement their experience through courses in Diesel maintenance, and by men who have been trained as Diesel mechanics by the Army and Navy and who may want to adapt their wartime experience to a peacetime vocation.

It is the purpose of this article to provide information leading to a balanced judgment about employment opportunities for Diesel mechanics. This information is based on interviews with manufacturers and users of these engines and with training-school officials, as well as on an examination of the vocational and technical literature in the field.

In maintaining and repairing a Diesel engine, the mechanic performs such duties as diagnosing trouble, disassembling the engine, replacing or repairing defective parts, reassembling the engine, and adjusting the fuel and air valves. The function of this mechanic is similar to that of other engine mechanics, and Diesel-engine maintenance is generally regarded as a specialized branch of general mechanical work rather than as a separate and distinct occupation. Diesel mechanics do not design or engage in the manufacture of the engine; manufacturing occupations correspond to those found in the production of other engines, and in metalworking and assembly operations generally.

The term, "Diesel engineer," has been frequently used rather loosely in vocational literature to refer sometimes to professional engineers and sometimes to mechanics. The first Diesel engines were almost exclusively of the heavy stationary and marine type and the latter use of the term "Diesel engineer" was carried over from the practice of referring to maintenance men in power plants and on ships as "engineers."

Diesel engineering, at the professional level, cannot be considered to be a distinct occupation from the standpoint of either formal educational requirements or practical specialization. The basic required technical knowledge is that of the mechanical engineer. Engineering colleges, for example, do not offer a degree in Diesel engineering, although they may provide some courses in its principles to mechanical-engineering students. Professional Diesel engineers can probably be counted in the hundreds and are found primarily in the manufacturing rather than the maintenance fields. The manufacture of Diesel engines requires the usual specialization of mechanical engineering skills, including designers, research engineers, production engineers, and installation engineers. As a result, the occupation of Diesel engineering, in its restricted professional sense, can be included both logically and practically under the broader occupational title of mechanical engineer. This study considers only the Diesel mechanic.

Diesel mechanics are employed in a wide range of industries in which Diesel engines are used. Some of the more important sources of employment are ships and boats, public-utility and municipal electric-power plants, stationary power plants in buildings and in many manufacturing industries, logging, petroleum production, railroads, and companies using or servicing Diesel busses, trucks, tractors, construction machines, and earth-moving machinery.

Future needs for men who can service and repair Diesel engines depend on the extent of the wider use of this engine in various industries. To evaluate the prospects for increased Diesel utilization requires an understanding of the characteristics of the engine and recent trends in its introduction into important fields of use.

### *Characteristics of the Diesel Engine*

The Diesel engine has been able to compete successfully with existing carburetor and steam engines for certain types of mechanical motive power because of its technical characteristics. It is an internal-combustion engine, similar in structure to the gasoline (or carburetor) engine. Both engines have similar stationary and working parts, including crankcases, cylinders, cylinder blocks and heads, exhaust manifolds and water-cooling systems with their associated pumps, radiators, and circulation jackets.<sup>2</sup> It is especially important to recognize this similarity in structure, since one of the most important factors in determining the opportunities for those with Diesel training is the ability of mechanics familiar with other engines to transfer their skill to this type of engine.

The essential difference between the carburetor engine and the Diesel engine, from the point of view of the mechanic, lies in their different methods of ignition. The Diesel engine has no electric ignition system and carburetor but has instead an oil-injector system and fuel pumps, with which the mechanic must be familiar.

It can be operated more economically than other engines, in many uses, because of its relatively more efficient utilization of fuel. This and certain other technical advantages are offset by its higher initial cost and greater weight per horsepower compared with the carburetor engine. It also lacks the flexibility required for passenger automobiles and is very noisy. These technical characteristics have made possible great expansions of its use in some fields, but have limited its use in others.

### *Prospects for Expansion in Use of Diesel Engines*

Employment opportunities in Diesel-engine maintenance occur in the industries which use or service this type of engine. For this reason it is important to measure the relative rate of introduction of the Diesel engine into its various fields of use, as well as the total growth in its production.

<sup>2</sup> For a description of the structure of the Diesel engine see General Motors Corporation pamphlet, *Diesel—the Modern Power*, published in 1941.

Much of the optimism concerning employment opportunities for Diesel mechanics resulted from the wider use of the engines during the decade before the war and their adaptation to new uses. Examination of the following tabulation<sup>3</sup> shows the rapid recovery of Diesel-engine production from the effects of the depression, and an expansion well beyond previous high levels.

	Number of units	Total rated horsepower	Value
1929-----	3, 588	485, 327	\$26, 798, 914
1931-----	1, 473	264, 037	11, 853, 820
1933-----	1, 144	139, 331	5, 153, 734
1935-----	6, 703	920, 261	17, 004, 187
1937-----	13, 814	1, 448, 857	41, 266, 449
1939-----	19, 263	1, 910, 627	45, 527, 826

By 1935, the number of units produced, as well as their total rated horsepower, exceeded the previous peak output of 1929. From 1933 to 1939 the number of units produced annually expanded 17 times, the aggregate rated horsepower 14 times, and the total value nearly 9 times. During the decade there was a reduction in the average size of the units produced, as measured by horsepower, and the average price per horsepower was reduced by more than half. These changes in character of output were caused mainly by the introduction of the engine for new uses. Sales of Diesel engines had consisted almost exclusively of marine and stationary engines until the early 1930's, when they began to be utilized in tractors, construction machinery, and locomotives, which use smaller engines. By 1939 the production of Diesel engines other than stationary and marine accounted for over half of the units and about 43 percent of the total horsepower. This does not include the engines made by tractor and locomotive manufacturers for installation in their products.

Diesel-engine production not only increased absolutely, but also made relative gains compared with carburetor engines (other than for motor vehicles) and steam engines and turbines. Diesel-engine production, as shown in the accompanying table, constituted 5.3 percent of the aggregate rated horsepower of internal-combustion engines and steam engines produced for sale as such in 1929, and 20.9 percent in 1939. However, the total production of engines included in this comparison is only a small fraction of the production of carburetor engines for passenger and commercial cars. There were 3,534,831 motor vehicles produced in 1939, including a very small number of Diesel-powered trucks and busses, while only 19,263 Diesel-engine units were made in independent engine plants (where the greater part of their production takes place). In addition, 478,935 carburetor engines were produced for other purposes, including 141,154 marine engines and 32,663 tractor engines.<sup>4</sup> Although Diesel-engine production has shown a marked relative as well as an absolute increase since 1929, it has begun to enter the market for motor-vehicle engines only in trucks and busses, and in these only to a small extent.

<sup>3</sup> Data are from the Census of Manufactures. They exclude all aircraft and motor-vehicle engines and engines made for installation in Diesel-electric locomotives, ships, boats, or tractors, when the engines in the locomotives, etc., are built by the same establishment.

<sup>4</sup> Census of Manufactures, 1939.



During the war a tremendous increase in Diesel-engine production has taken place, to meet the requirements of the armed forces. The total for 1943 has been estimated at 25,000,000 horsepower, as compared with less than 2,000,000 horsepower produced in 1939. The wartime output has exceeded the aggregate horsepower produced from the beginning of manufacture in this country through 1941. The greater part of the wartime production has gone directly to the armed forces, with the Navy taking the largest share. These engines have been used so extensively in such vessels as submarines, destroyers, patrol boats, and landing boats that the Diesel horsepower operated by the Navy is greater than its total steam horsepower. The Army has used Diesels in some of its tanks and heavy trucks, and both services have relied upon them to power the construction and earth-moving equipment which has been so important during the war.

*Distribution of Engine Production by Type of Engine, 1929 and 1939<sup>1</sup>*

Type of engine	Rated horsepower			
	1929		1939	
	Total	Percent	Total	Percent
All types.....	9, 204, 390	100. 0	9, 160, 880	100. 0
Diesel engines <sup>2</sup> .....	485, 327	5. 3	1, 910, 627	20. 9
Carburetor engines (excluding those used in motor vehicles) <sup>3</sup> .....	5, 321, 280	57. 8	5, 912, 333	64. 5
Steam engines and turbines <sup>3</sup> .....	3, 397, 783	36. 9	1, 337, 920	14. 6

<sup>1</sup> Census of Manufactures.

<sup>2</sup> Data for Diesel engines and carburetor engines exclude all motor-vehicle and aircraft engines, as well as engines made for installation in locomotives, ships, boats, or tractors, when the engines are made by the establishment building the locomotives, etc.

<sup>3</sup> Data for steam engines and steam turbines exclude production of locomotives and turbo-generators, and steam engines made for installation as parts of ships, blowers, pumps, etc. when the engines are made by the establishment building the ships, etc.

The post-war prospects for Diesel-engine sales, after war contracts have been terminated, depend upon the ability of the manufacturers to compete in the normal peacetime markets for engines. The high production levels of the war have made possible the development of mass-production methods and have stimulated technical improvements which may aid the competitive position of the Diesel engine.

Before the war this type of engine had been used in many different industrial fields, but until recently was particularly important as a source of stationary and marine power. The following tabulation shows the distribution of installed Diesel horsepower at the end of 1941 by type of use. The categories listed have been grouped under the kind of Diesel engine typically utilized by each.

	Rated horsepower (thousands) <sup>1</sup>	Percent
All types-----	19, 122	100. 0
Automotive-----	7, 630	39. 8
Tractors and contractors' machinery, includ- ing tanks-----	6, 247	32. 6
Trucks-----	955	5. 0
Busses-----	428	2. 2
Stationary-----	6, 594	34. 6
General industry-----	5, 138	26. 9
Public utility-----	526	2. 8
Municipal light and water-----	930	4. 9
Marine, including U. S. Navy-----	3, 841	20. 1
Railroads-----	1, 057	5. 5

<sup>1</sup> Data are from Diesel Power, January 1942.

The magnitude of post-war sales will depend upon the success of Diesel manufacturers in maintaining and extending their previous gains in the marine and power fields and developing further their market for locomotive- and automotive-type engines, including those for trucks, busses, tractors, and construction and farm machinery. Diesel engines will be utilized extensively in ships and boats, particularly in the medium- and small-size vessels.

The use of Diesel and Diesel-electric locomotives by the railroads will undoubtedly continue to expand. By 1943 over 2,000 Diesel locomotives were being operated by class I railroads, most of which had been purchased since 1937. Their relatively minor place in this field is indicated by the fact that more than 40,000 steam locomotives are also in service. Railroads have used the greatest number of their Diesel locomotives for switching, and they may largely supersede steam locomotives in this function. Many lines have been operating the widely publicized Diesel-electric streamlined passenger trains, and in the past few years Diesel locomotives have been successfully introduced into freight service.

In recent years a large proportion of the tractors and construction machinery produced have been powered by Diesel engines, and it is probable that they will continue to dominate this field in the post-war period.

The automotive field constitutes by far the greatest market for engines. Diesel trucks and busses are now in use, but they are still a very small proportion of the total. There are good prospects for expansion in the truck and bus field, however, particularly in the heavier vehicles, and especially if technical improvements reduce the present disadvantages of Diesels for this type of use. It is considered unlikely that Diesel engines will be used in passenger cars in the predictable future.

Job opportunities for Diesel mechanics are related to the number of Diesel engines in use. There were at least 100,000 units in service at the end of 1939. More recent data on the number of units produced are not available, but statistics on the rated horsepower of engines produced since 1939 for nonmilitary use suggest that the number of units in service may now be at least 50 percent higher than in 1939. The post-war period may see a substantial increase over pre-war levels in the utilization of these engines if some of the sales potentialities listed above are realized and if many of the Diesel engines constructed during the war are used for peacetime purposes. Under these conditions the number in use should more than double the 1939 total within a few years after the war, and it will probably continue to increase at a rapid rate.

### *Opportunities for Diesel Mechanics*

The wider use of Diesel engines in the marine, electric-power, railroad, and automotive fields after the war will result in an increased need for maintenance. However, this greater demand will not require a corresponding increase in the supply of newly trained Diesel mechanics, because of the ease with which mechanics familiar with other types of engines can transfer their skill to the maintenance of Diesel engines.

Employment practices among the industries using these engines largely determine the number of new job openings for Diesel mechanics as the engines are introduced and the need for their servicing arises. Large electric power stations, for example, generally employ supervisory stationary engineers with long practical experience who are directly responsible for the operation, maintenance, and repair of engines, and mechanics are usually placed under their immediate supervision. When a Diesel engine replaces another engine, the stationary engineer must apply his experience and previous knowledge to the new engine and then retrain the mechanics under his supervision.

Officers in charge of the operation and maintenance of the engines on ships are also called engineers, and they must be licensed by the U. S. Bureau of Marine Inspection and Navigation in peacetime and by the U. S. Coast Guard during the war. Their duties are somewhat broader than those of the stationary engineer because they are responsible for the operation and maintenance of all of the mechanical and electrical equipment on a ship. In the requirements for engineers' licenses, experience in the engine department of ships weighs very heavily, and a written examination must also be passed. A person with Diesel training but without engine-department experience on ships is not sufficiently qualified for even the lowest grade of licensed engineer, even though the requirements have been reduced during the war. Separate licenses are provided for engineers on steam and Diesel ships, and an engineer on a steam vessel cannot obtain a license for a Diesel (motor) vessel until he has acquired experience in the engine department of a Diesel ship. This requirement has been waived during the war, for third assistant engineers, and steam and Diesel experience are interchangeable for this, the lowest grade of licensed engineer.



The adoption of Diesel engines by railroads usually involves a readjustment by their experienced mechanics rather than the hiring of new personnel. The explanation was made, during an interview with an official of a large railroad company, that the seniority rules of their labor contract required that the mechanics employed in the maintenance of steam locomotives be assigned to Diesel engines before new workers are hired. Since the mechanics on this railroad had undergone an apprenticeship of 4 years and usually had long practical experience, they were considered able to repair a Diesel engine with little formal supervision or retraining.

More recently, employment opportunities for Diesel mechanics have appeared in the servicing of motor vehicles. The experience of a large bus company, with 40 percent of its busses powered by Diesels, may be cited as one example of employment practices in the automotive field. The manager of the maintenance department reported that all the mechanics who had been hired had only gasoline-engine experience, even though a large number of busses with Diesel engines had been serviced for several years. When Diesel engines were originally introduced, the bus company selected several foremen and superior mechanics and sent them to a Diesel training school for 2 months. These trainees then served as leadmen in training other mechanics. Mechanics with Diesel training or experience had not been hired recently, simply because none had been available on account of the wartime shortage of skilled engine mechanics. It is significant that the company was able to make its adjustment to Diesel-engine busses by depending primarily on the skill of its gasoline mechanics.

It is evident that the wider use of Diesel engines has generally resulted in the retraining and adaptation of the skills of engine mechanics who were already employed rather than in their technological displacement. Experience or training in servicing Diesel engines may improve the competitive position of an engine mechanic in the labor market, but length of experience, seniority, and all-round mechanical ability will continue to be the more important considerations even if Diesel engines should replace other forms of motive power.

The supply of qualified Diesel mechanics has been augmented by the large number of servicemen who have received Diesel training during the war. The Navy established a special rating for Diesel mechanics, known as "motor machinist's mate," in January 1942. On September 1, 1944, there were 70,364 motor machinist's mates, including 54,900 who had been trained as Diesel mechanics since the start of the war. The Army also trained 5,086 enlisted men as Diesel mechanics during a similar period. The Navy has trained mechanics to service marine Diesel engines, while the Army has generally trained Diesel mechanics to maintain tank and truck engines.

No data are available as to the number of experienced Diesel mechanics and the number of Diesel-school graduates. The number of these mechanics employed cannot be easily determined, since many of their employers' records do not show a separate occupation for them and many also work on other engines. Although no statistics are available, there is evidence that the number of resident Diesel-school students has been very small during the war.

However, if past practices are followed by employers, most of the job openings created by the wider use of Diesel engines will be filled

by mechanics employed in repairing other engines. The 1940 Census of Population reported 949,658 persons experienced as mechanics and repairmen, represented by 441,845 automobile, 28,384 airplane, and 43,998 railroad mechanics and repairmen, as well as by 435,431 other mechanics and repairmen. While the number of engine mechanics, as distinct from other types of mechanics and repairmen, cannot be specifically determined, most of the 514,227 automobile, airplane, and railroad mechanics and repairmen were probably engine mechanics, and many engine mechanics can be found among the 435,431 other mechanics and repairmen. This large reservoir of men, capable of learning to maintain and repair Diesels with relatively little additional training because of their previous experience, is the greatest single factor in the potential supply of Diesel mechanics.

The relative position of Diesel engines as a source of demand for repairmen is indicated by the fact that only about 100,000 Diesel engines were in use by the end of 1939, as compared to 31,000,000 registered passenger cars and motor trucks using carburetor engines. Although, as suggested above, the number of Diesel engines to be serviced may double the 1939 total within a few years after the war and continue to grow, it will still represent only a small fraction of the number of other types of engines in use.

The practice of retraining mechanics experienced on other engines to service Diesel engines, before new workers are engaged, and the increased supply of Diesel mechanics trained in the armed forces make the potential supply of Diesel mechanics after the war more than sufficient to meet any demand that may reasonably be expected. As a result, the value of Diesel training for persons without experience in engine maintenance would seem to be definitely limited. Experienced mechanics who desire to transfer to Diesel maintenance, and mechanics already employed by companies using or servicing Diesels, may find brief training courses useful in learning about some of the specialized components of the Diesel, such as the oil injector and fuel pump.

### *Training for Diesel Maintenance*

In cases in which it has been decided that training would aid in obtaining or holding a job in Diesel maintenance, the training course should be carefully selected. There are no generally recognized standards for Diesel training, and in any event the scope of the instruction would depend upon the previous mechanical knowledge of the student. Privately operated trade schools offering Diesel training have often provided inadequate facilities and instruction. Before enrolling in a privately operated trade school, the prospective student may be able to obtain information on the quality of the instruction offered, from the superintendent of schools or the director of vocational training in the locality in which the school operates.

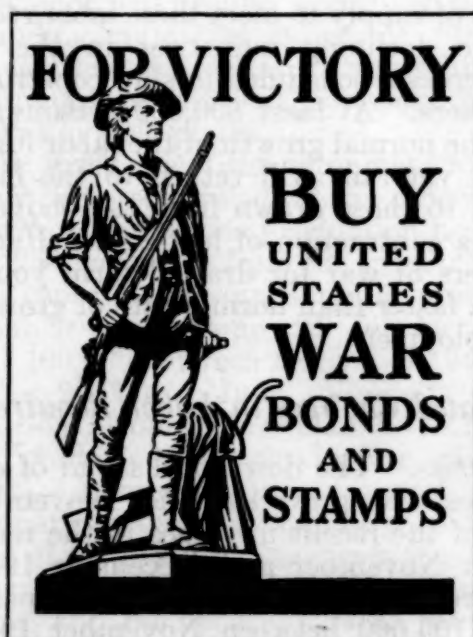
Courses in Diesel mechanics are taught in a number of public vocational and trade schools operated by local school boards. Generally this training is given as a part of regularly conducted training in auto mechanics. Special courses in maintenance can frequently be made available by vocational schools for employed adults who require Diesel training in connection with their daily employment.

Information on opportunities for training in this field may be obtained from the local superintendent of schools or the local director of vocational education.

Correspondence courses seem to be of little practical value to the person without mechanical experience, although they may be helpful to the experienced engine mechanic if he is able to learn from textual materials without the direct personal guidance of an instructor.

Two complete although accelerated training programs for Diesel mechanics were conducted by the Army and Navy. The Army program involved 12 weeks of training as an automobile mechanic and an additional 4 weeks of specific Diesel training, for a total of 800 hours of study. The Navy has required an 8-week preliminary engineering course and a 5-week elementary Diesel course, followed by 4 to 8 weeks of advanced Diesel-engine training, or a total of 850 to 1,050 hours of study. These training programs were designed to be complete courses of study, suitable for students with little practical experience, the specific Diesel-engine training being viewed either as part of the broader training of a competent engine mechanic or as an extension of previous training as an auto- or marine-engine mechanic.

These military training programs were designed for a specific purpose, the supplying of qualified Diesel maintenance men to the armed forces—and are interesting as an illustration rather than as a model for a civilian course of instruction. In peacetime mechanical training the scope and content of the course of study selected should be consistent with the background and needs of the individual student.





# Employment Conditions

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## Manpower Outlook for First Half of 1945<sup>1</sup>

### Summary

EMPLOYMENT in the munitions industries increased in December 1944, reversing the downward trend which had prevailed since November 1943. The increase amounted to 50,000, as compared with average monthly decreases of 100,000 during the preceding year. Preliminary reports to the War Manpower Commission show that this upward trend is continuing strongly, with an increase of 50,000 in the first half of January 1945.

The expanding munitions programs, including the recently announced plans for equipping the French Army, will require 400,000 more persons by June 1945. An additional 200,000 persons will be needed by transportation, construction, and other war-supporting activities. During the same period 900,000 civilians will be inducted or enlisted into the armed forces. These requirements total 100,000 less than the estimate of 1,600,000 recently submitted to Congress, because employment in munitions and other war-supporting industries has already increased by that amount in the month that has elapsed since then.<sup>2</sup>

Potential sources of supply to meet these labor requirements include the following: The declining industries in the munitions group, particularly the decreases scheduled in ship construction, will provide about 200,000 workers. At least 500,000 persons will become available as a result of the normal growth of the labor force. An estimated 400,000 discharged veterans will return to the civilian labor force. Workers additional to those drawn from the above sources will have to be obtained by a contraction of less-essential activities, by a substitution of prisoners of war for drafted farm youths, by increasing the labor force at a faster than normal rate of growth, and by further reduction of unemployment.

### Estimated Changes in Labor Requirements

*Munitions industries.*—The downward trend of employment in the munitions industries that prevailed since November 1943 has been halted as a result of the recent increases in the requirements for war matériel. Between November and December 1944 employment in these industries increased by about 50,000 as compared with a monthly rate of decline of 100,000 between November 1943 and November

<sup>1</sup> This is the seventh of a series of periodic statements on manpower requirements and labor supply published jointly by the Bureau of Labor Statistics and the War Manpower Commission.

<sup>2</sup> The figures in this article were released to the public on January 25, 1945.

1944. This rise in employment coincided with an upswing in munitions output. Production gains were registered in each of the major groups in which requirements had been expanded. Thus, the output of ammunition was increased almost 3 percent, aircraft production rose about 2 percent, and the output of combat and motor vehicles was more than 7 percent greater in December than in November. The total increase in munitions production between these two months was about 1 percent.

Further increases in munitions employment must occur if the requirements currently pictured by the procurement authorities are met; the expanding components of the munitions industries will require an additional 400,000 workers by June 1945. This increase in requirements is composed of, roughly, 100,000 for production of ordnance, 100,000 for ship repair, and an allowance of 200,000 additional for equipping the French Army and other items now being scheduled. Since these requirements will be partially offset by scheduled decreases in ship construction and certain minor components, the net requirements are approximately 200,000 workers. Thus, munitions employment must rise from 9.1 millions in December 1944 to 9.3 millions by June 1945.

It must be noted, however, that the real size of the recruitment problem is concealed when considered only in the light of the total net increase required in munitions employment. In the first place, much of the recruitment will have to be for plants in small communities where the local supply is negligible or in areas where the supply is already strained. Secondly, since declines in employment in one industry and area will not result in an immediate and automatic filling of labor needs in other industries and areas, specific channeling techniques will be required to bring the released war workers from those firms whose employment will decline, according to schedule, into the plants in the expanding munitions industries. In addition, the relatively high turnover that still exists in many important munitions plants makes continuous recruitment necessary merely to maintain the employment level in such plants.

Program increases, exclusive of the equipment for the French Army and other items now being scheduled by the procurement authorities, indicate that the critical munitions production needs during the first 6 months of 1945 will stem largely from the spectacular increases in the demand for certain types of ammunition and guns. The December schedules for ordnance items alone call for increased employment amounting to about 100,000 between December 1944 and March 1945, with perhaps another 20,000 by June. Virtually all of the increases will go into ammunition, as only minor changes from current levels are indicated for this period in the production of guns and combat and motor vehicles. Attainment of many of the specific goals scheduled in the ordnance group may well be considered problematical in view of shortages of facilities and new components for some of the new products, numerous technical difficulties confronting the production of specific items, and the generally rapid rate of acceleration of output required.

Current schedules for the communications and electronic equipment industry indicate an increase of 30,000 in employment by March, but requirements will decline again between March and June 1945 to the December 1944 employment level. However, the realization of the

production schedules in this industry depends more upon the elimination of the recurrent technical difficulties and design changes than upon the availability of labor.

The aircraft production program is in process of further upward revisions. The best data currently available call for an increase in employment of about 50,000 between December and March, with a return by June 1945 to the December 1944 employment levels. This represents a significant reversal in trend, since throughout 1944 employment in this industry had been decreasing.

On the other hand, total employment is scheduled to fall off by more than 100,000 in the shipbuilding industry. This is a net estimate, consisting of a 200,000 decline in the construction phase of the industry and an increase of 100,000 in employment in repairs and maintenance between November 1944 and June 1945.

*Nonmunitions industries.*—In the nonmunitions industries, increases of approximately 200,000 during the first half of 1945 may be expected in such activities as construction, transportation, public utilities, certain Government establishments, cotton textiles, and logging and lumbering. No significant changes other than seasonal are anticipated in other nonmunitions groups. The indicated increase of 2.3 million workers in agriculture between December 1944 and June 1945 is purely seasonal and will be accompanied, as in the past, by a roughly corresponding seasonal increase in the labor supply. However, the June 1945 level is expected to be about 100,000 below the June 1944 level. It is anticipated that this deficit will be taken care of by more extensive use of prisoners of war.

### *Requirements of the Armed Forces*

The armed forces withdrew 2,300,000 persons from civilian activities between December 1943 and December 1944. During the first half of 1944 the emphasis was on acquiring sufficient manpower to bring the armed forces up to planned strength in preparation for the battles to be fought on D-Day and thereafter. After July the emphasis shifted to one of recruiting young males who could be used as replacements and trained within short periods of time to take over combat duties. These changed requirements resulted in a continued decrease of withdrawals from civilian activities. Whereas in the first 6 months 1,400,000 were withdrawn, in the second 6 months only 900,000 were taken. In net-strength figures these withdrawals show up as an increase of 1.1 million persons in the first 6 months and 500,000 in the last 6 months. The difference between the gross intake and increase in net strength is accounted for by the losses of the armed forces—discharges to civil life, casualties, and normal attrition.

The armed services indicate that they will require a gross intake of 900,000 in the first half of 1945. This total is approximately the same as for the last half of 1944.

The source of the 900,000 additions to the armed forces will be somewhat as follows: 400,000 male youths 17 through 18 years of age by enlistment or induction, 200,000 from those 18 through 25 years of age now classified in I-A, 50,000 women; the remainder will consist of men 26 and over and youths, 18 through 25 now holding agricultural deferments. The meeting of these requirements will cause



the depletion before June 1945 of the pool of youths 18 through 25 years of age now registered in class I-A and will raise serious production problems to the extent that it is necessary to take physically fit men in the 26-29 year age group classified II-A and II-B.

The 900,000 gross increase will be distributed so that 300,000 will go to the Navy and 600,000 to the Army. The Navy is expected to increase from its present net strength of 3.8 millions to 4.0 millions in June 1945, while the Army which at present has 8.1 million persons indicates that its requirements are for replacements of casualties and normal attrition.

Although the military services will be taking about 150,000 each month, it is estimated that they will return to civilian activities about 65,000 each month. Thus, the net drain from the civilian labor market during the period from December 1944 to June 1945 will be 500,000 persons.

### *Estimated Changes in Size of Labor Force*

In response to the requirements of the war effort the total labor force, including the armed forces, has been greatly expanded since 1940. The increase in the labor force during this period exceeded by more than 6½ millions the rise that could have been expected under "normal" conditions. Over 11 million persons were drawn into the armed forces between December 1940 and December 1944. Despite this sharp increase in the armed forces, the civilian labor force declined by only 1.4 millions—from 52.7 millions in December 1940 to 51.3 millions in December 1944. During this period, unemployment declined from 6,600,000 to 700,000.

*Composition of the Labor Force in Specified Month<sup>1</sup>*

Item	Number of workers (in millions)			Estimated requirements June 1945 (in millions)
	December 1943	June 1944	December 1944	
Total labor force, including armed forces .....	62.2	65.6	63.2	66.2
Armed forces .....	10.3	11.4	11.9	12.1
Civilian labor force .....	51.9	54.2	51.3	54.1
Unemployed .....	.9	1.0	.7	1.0
Employed .....	51.0	53.2	50.6	53.1
Agricultural .....	6.8	9.5	7.1	9.4
Nonagricultural .....	44.2	43.7	43.5	43.7
Munitions industries <sup>2</sup> .....	10.3	9.6	<sup>3</sup> 9.1	9.3
Other manufacturing <sup>4</sup> .....	7.3	7.0	<sup>3</sup> 7.0	7.0
Federal war agencies .....	1.5	1.6	<sup>3</sup> 1.6	1.6
Other government <sup>4</sup> .....	4.1	3.9	<sup>3</sup> 4.1	3.9
Transportation and public utilities .....	3.7	3.8	<sup>3</sup> 3.8	3.9
Construction .....	.8	.7	<sup>3</sup> .6	.7
Mining .....	.9	.8	<sup>3</sup> .8	.8
Trade and service .....	11.7	11.4	<sup>3</sup> 11.9	11.5
Other <sup>5</sup> .....	3.9	4.9	<sup>3</sup> 4.6	5.0

<sup>1</sup> Data for civilian labor force, unemployment, and agricultural and nonagricultural employment are from Monthly Report on the Labor Force, Bureau of the Census; data for components of nonagricultural employment are from records of Bureau of Labor Statistics.

<sup>2</sup> Includes all metal-using industries, rubber industries, and selected chemical industries and Government manufacturing arsenals and navy yards.

<sup>3</sup> Preliminary.

<sup>4</sup> Includes tobacco, paper and allied products, printing, publishing, lumber, furniture, finished lumber products, stone, clay and glass industries, food, textiles, apparel, leather, and parts of chemicals and miscellaneous manufacturing.

<sup>5</sup> Includes State and local government; Federal Government (except war agencies, navy yards and manufacturing arsenals).

<sup>6</sup> Difference between Census estimate of total nonagricultural employment and BLS estimate of employees in nonagricultural establishments. Includes self-employed, proprietors, domestic servants, and unpaid family workers but is not an accurate measure of the size of these groups because of certain incomparabilities between the Census and BLS series.

Women have played an important part in replacing the loss of males to the armed forces from the civilian activities. Thus, in December 1940 about 25 percent (or 12.5 millions) of the female adult population (14 years of age and over) was in the labor force. Since then this proportion has been rising steadily, so that by December 1944 it had climbed to 34 percent (or 17.8 millions) of the adult female population. It is significant to note that the upward trend in the rate of female participation in the labor force was maintained throughout 1944.

During 1944 the previous extremely rapid rate of increase in the labor force tapered off and was virtually at the normal rate. The estimate used here assumes that in 1945 the growth of the labor force will continue to be at the normal rate, and that by June 1945 about 66.2 million persons will be in the labor force, including the armed forces. However, accelerated demands of the armed forces for matériel and personnel may cause the labor force to increase once more at a rate above normal.



### Interregional Recruitment of Workers in 1944<sup>1</sup>

THE accelerated 1944 war production program necessitated the transfer of workers from localities in which they were not being utilized in essential war work to communities where they were needed more urgently. To effect those shifts, interregional recruitment was used, the Washington headquarters office of the War Manpower Commission being responsible for planning and controlling the program. That agency, together with its regional offices, engaged in such recruitment for the following major war industries: West Coast naval ship-repair yards, shipyards building combat-loaded troop transports and assault cargo ships, aircraft plants building B-29's and improved fighter planes, airborne radar equipment manufacturers, heavy artillery shell casing and explosive plants, forges and foundries producing component parts for heavy trucks and tanks, construction for the Army and Navy, coal mines, and certain secret military projects. For these industries, the Washington headquarters of the WMC received, through its regional offices, employers' requests for approximately 500,000 workers who could be obtained only by interregional recruitment. Because of the screening of such requests at each level of operation in the field, it was possible for the National Manpower Priorities Committee<sup>2</sup> to recommend approval of orders involving 371,195 actual job openings.

In an effort to fill war employers' demands, the local U. S. Employment Service offices interviewed, selected, and referred to employers' hiring representatives, 529,605 workers. Of this number, 277,489 were accepted for employment. The accompanying table shows, by region, the number of openings, referrals, and acceptances handled by the interregional recruitment program during 1944. Referrals

<sup>1</sup> U. S. War Manpower Commission. *The Labor Market*, January 1945 (p. 20); Memorandum on interregional recruitment in 1944, January 5, 1945.

<sup>2</sup> Established by the Chairman of the War Manpower Commission, June 10, 1944. The Committee is composed of representatives of procurement agencies, such as the Army, Navy, Maritime Commission, War Production Board, Civil Service Commission, and Aircraft Resources Control Office. Its function is the review, and recommendation of approval or denial, of employers' requests for interregional recruitment.

exceeded both openings extended and acceptances. Refusals of jobs by workers were due to reluctance to leave the town in which they were living, the high costs attendant upon moving their families, inadequate housing and undesirable living conditions in congested areas where war plants are situated, long hours, arduous work, and community resistance to out-migration of workers. On the other hand, some employers have been reluctant to adjust their hiring standards to the greatly depleted labor market. Inordinately high job specifications and extremely unrealistic selectivity have persisted, according to the WMC. That agency also states that some employers who in normal times have been influenced by racial prejudice or prejudice against the employment of handicapped persons, members of the over-age group, and women, have not changed their hiring policy.

*Workers Referred and Placed, Under Interregional Recruitment Program, 1944*

Region	Openings extended	Referrals	Acceptances
Total, all regions.....	371, 195	529, 005	277, 489
Region I: Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont.....	8, 240	11, 601	5, 594
Region II: New York.....	66, 139	74, 287	42, 913
Region III: Delaware, New Jersey, Pennsylvania.....	14, 459	10, 690	8, 789
Region IV: District of Columbia, Maryland, North Carolina, Virginia, West Virginia.....	23, 754	31, 432	13, 636
Region V: Kentucky, Michigan, Ohio.....	15, 684	23, 531	14, 568
Region VI: Illinois, Indiana, Wisconsin.....	33, 663	52, 798	22, 028
Region VII: Alabama, Florida, Georgia, Mississippi, South Carolina, Tennessee.....	24, 369	33, 485	17, 112
Region VIII: Iowa, Minnesota, Nebraska, North Dakota, South Dakota.....	47, 553	51, 907	31, 001
Region IX: Arkansas, Kansas, Missouri, Oklahoma.....	57, 894	122, 641	59, 475
Region X: Louisiana, New Mexico, Texas.....	56, 009	76, 530	40, 348
Region XI: Colorado, Idaho, Montana, Utah, Wyoming.....	20, 273	39, 306	20, 656
Region XII: Arizona, California, Nevada, Oregon, Washington.....	3, 158	1, 397	1, 369

**Placements by U. S. Employment Service in 1943<sup>1</sup>**

NONAGRICULTURAL placements made by the U. S. Employment Service in 1943 numbered 9.4 millions, and exceeded those made in 1942 by more than a third; applications decreased at a slightly smaller rate. Although the number of placements had fallen in 1940 below those made in 1939, they rose by almost one-half in 1941, as shown by the accompanying tabulation, and have increased each year since then. Nonagricultural placements in 1943 exceeded those of 1941 by 73.8 percent; applications fell 36.2 percent.

	Applications	Placements
1939.....	15, 066, 857	4, 152, 139
1940.....	16, 486, 849	3, 661, 040
1941.....	18, 599, 466	5, 404, 291
1942.....	17, 824, 834	6, 919, 892
1943.....	11, 843, 132	9, 393, 196

Of the major occupational groups in which the 9.4 million non-agricultural placements were made in 1943, unskilled workers represented slightly over half of the total (51.0 percent) and the

<sup>1</sup> Data are from Social Security Yearbook, 1943 (Federal Security Agency, Social Security Board, Washington, 1944).



semiskilled, slightly over one-seventh (15.5 percent). The remaining third was divided as follows: Skilled 12.7 percent, service 11.3 percent, clerical and sales 8.5 percent, and professional and managerial, 1 percent.

Of those placed, 83.5 percent were white (81.0 percent in 1942) and 16.5 percent were nonwhite.

Placements of women represented 35.6 percent of the total non-agricultural placements in 1943, as compared with 32.4 percent a year earlier.

	<i>Number placed</i>
Nonagricultural placements, 1943.....	9, 393, 196
Major occupational groups:	
Professional and managerial.....	96, 817
Clerical and sales.....	802, 000
Service.....	1, 058, 721
Skilled.....	1, 190, 446
Semiskilled.....	1, 453, 056
Unskilled and other.....	4, 792, 156
Race:	
White.....	7, 838, 919
Nonwhite.....	1, 554, 277
Sex:	
Men.....	6, 045, 352
Women.....	3, 347, 844

The representation of each occupational group in the total was about the same for 1942 and 1943, except for a decrease in service placements from 19.5 percent in 1942 to 11.3 percent in 1943, and slight increases in the 1943 proportion of placements of semiskilled and unskilled labor. Within each occupational group, except service, the proportion of placements of women increased, however; in 1943, women represented one-third of the placements of professional and managerial workers (as compared with only one-fourth in 1942) and 26.9 percent of the placements of unskilled workers (as contrasted with 16.3 percent a year earlier).

### Labor Conditions in Sweden, 1944<sup>1</sup>

UNTIL the war in Europe reaches a stage permitting removal of the North Sea blockade now hampering Sweden's foreign trade, no substantial change in the conditions affecting Swedish labor is likely to occur. During 1944 available manpower continued to decline markedly as a result of continuously large inductions for defense service. Workers for emergency activities (such as the production of firewood, peat, and charcoal to replace imported fuels) were in great demand. The shortage of skilled workers in some fields will gradually be relieved by the retraining of unemployed workers from other occupations.

In 1944 two new factors appeared, which, although relatively unimportant thus far, may assume serious dimensions if the suspension of the Swedish foreign trade continues for any great length of time. These are a growing difficulty in continuing the activities of Sweden's

<sup>1</sup> Data are from a report by Grant Olson, of the United States Legation at Stockholm, dated November 27, 1944 (No. 277).

leading export industries because of the suspension of the trade with Germany—Sweden's most important customer during the North Sea blockade—and an increasing dissatisfaction among Swedish workers with their present wages. As regards the first of these two factors, it is hoped to relieve the situation somewhat by increased trade with Soviet Russia and Finland. This, however, is not likely to afford much real relief, considering especially that the trade with both these countries will have to be carried on chiefly on a credit basis. As regards the second factor, the large number of collective agreements canceled during the autumn of 1944 and the attitude adopted by the workers indicate the possibility of labor disputes during the early part of 1945.

### *Employment and Wages*

Both the trade-union leaders and the government are opposed to fundamental wage increases, which they fear may lead to inflation, if adopted under the present economic conditions. Furthermore, it is asserted that the Swedish workers are sufficiently well off to be able to refrain from taking any action which might disturb the economic stability so successfully maintained during the last 2 years. In support of this contention, it is stated that, in a recent investigation based on the Social Board's wage and cost-of-living statistics, it was found that up to the end of 1943 there had been an increase of 31 percent in the total amount of wages over the pre-war level, signifying a decline of only 8 percent in the real compensation of all workers. In the case of industrial workers, the increase was 35 percent, representing a decline of only 5 percent in real wages. The freezing of wages has not been so effective as the freezing of prices, the result being a continued gradual advance, which in 1943 averaged 5 percent of the total amount of cash wages. Most of the recent increases have taken place outside of the wage agreements, and affect chiefly workers receiving minimum and contract wages, principally in the metal industry.

During the third quarter of 1944 there was an increase over both the preceding quarter and the corresponding quarter of 1943 in the number of employed workers and in the amount of wages paid. In comparison with the corresponding quarter of 1939, however, the number of workers was somewhat smaller, while the amount of wages was substantially larger, as shown by the following tabulation:

	<i>Indexes (first quarter of 1935=100)</i>		
	1939	1943	1944
Workers employed:			
First quarter.....	114.1	110.2	110.3
Second quarter.....	120.3	112.7	109.4
Third quarter.....	120.3	107.4	110.1
Wages paid:			
First quarter.....	131.0	178.0	179.4
Second quarter.....	139.5	182.6	178.9
Third quarter.....	140.6	172.2	182.3

According to the latest report published, unemployment among Swedish trade-union members at the end of August 1944 was the lowest on record during the last 6 calendar years, being 2.7 percent of the total trade-union membership, as compared with 3.2 percent at the end of the second quarter of 1944, and 3.6 percent in August 1943. The suspension of trade between Sweden and Germany, however, has led to increased unemployment among miners, seamen, and dock laborers.

The only important labor dispute in 1944 was the Swedish sugar-mill workers' strike for better wages, which lasted for a little over a month and was settled by compromise on June 13, 1944. Approximately 6,000 workers were benefited slightly by the new agreement, which is effective until January 31, 1946.

As already stated, notices of termination of a large number of Swedish collective agreements were given last fall. The number of workers involved was about 300,000. In the case of a number of other agreements, however, affecting approximately 150,000 workers, it was agreed to postpone the cancellation date, for the time being. The most important of the cancelled agreements was that in the metal industry, which affected approximately 200,000 workers. In October several new agreements of considerable importance were signed, the principal ones being a farm-labor agreement affecting some 70,000 workers and a forest-labor agreement signed on behalf of 78,000 lumberjacks. In the stone industry also, a new agreement was concluded, and settlement was reached in regard to war-risk compensation to seamen both within and without the blockaded zone. The above-mentioned farm-labor agreement, besides providing for an average wage increase of 12 percent, stipulates total abolition by November 1, 1945, of the Swedish system (more than 150 years old) of paying a certain class of farm hands a part of their wages in kind. It is estimated that nearly 40 percent of the Swedish farm laborers now receive a part of their wages in kind. The question of increased compensation to Government employees in the lowest wage classes, numbering about 40,000, is at present under discussion. This plan, which has the support of the Minister of Finance, will probably lead to the submission of a bill to the Riksdag.

The rise from 240 to 243 in the cost-of-living index during the third quarter of 1944 was not sufficient, under the existing agreements, to call for wage revisions.

Considerable supplementation of the supply of manpower in Sweden appears to be derived lately from the heavy influx of refugees from Finland and the Baltic States. The total number of refugees in Sweden now probably exceeds 100,000. According to the latest official report, the number of refugees totaled 49,500 on June 1, 1944, the majority being Norwegians and Danes. Since then, however, the press has reported the arrival of nearly 29,000 evacuees from northern Finland and about 19,000 Baltic refugees. Plans are being worked out for the employment of several thousand Baltic refugees in the textile industry, which has been greatly hampered by lack of workers, especially women workers. Because of the acute shortage of manpower in many industries, little difficulty has been experienced thus far in finding employment for refugees.



### Labor Conditions in Netherlands Indies: Correction

IN THE article entitled, "Labor Conditions in the Netherlands Indies," in the May 1944 issue of the Monthly Labor Review, the following corrections should be made: In the last sentence beginning on page 973, the phrase "The invasion period prior to the Japanese occupation" should be substituted for "Indies participation in the war." In footnote 2 on page 974, the clause "war was declared on Japan" should be substituted for "Japan invaded the Indies."



## Wartime Policies

### Instructions and Directives Relating to Manpower

MORE effective use of manpower is the purpose of the following instructions and directives issued recently by the various Government agencies responsible for coordinating the workers and the war effort of the United States in the field of production.

*Establishment of categories of employer orders for priority referral.*<sup>1</sup>—The War Manpower Commission, on November 27, 1944—effective December 15—introduced a uniform Nation-wide system of categories of employer orders for priority referral. Under this system, priorities are to be assigned to orders for specific numbers and kinds of workers. Five priority designations are to be used, as follows:

Category 1: Only orders of exceptional importance to the national war production effort are to be placed in this class, and then only by the Chairman of the National Priorities Committee. However, in an area where a Manhattan District Project establishment is located, the Area Manpower Director may place such a concern's orders in this class, provided they meet the criteria for category 3.

Category 2: Selected orders which meet the requirements for category 3, 4, or 5 may be placed in this class in order to meet emergencies which may result in production breakdowns or services delays directly affecting essential production or community health and welfare. The total number of openings which may be placed in this class at any one time is to be limited to 5 percent of the total local priority openings in categories 1, 3, 4, and 5. The purpose of this classification is to provide speedy referral service to meet emergency situations which require it.

Category 3: Orders which may be placed in this group are those from establishments (a) which have a production urgency rating of III; (b) whose production or service is behind schedule for manpower reasons or threatens to become so because of an expanded schedule; and (c) whose orders are for workers who will be engaged on "must" production or services, or on production or services with equivalent local urgency ratings.

Category 4: Orders in this class are those from establishments with a production urgency rating of IV, or those having a rating of III whose orders can be filled by being placed in class 4. Orders from such concerns are to be placed in this group only if they are for workers required for production or service designated as "must" or equivalent in urgency to "must" production or service.

Category 5: Orders from essential and locally needed establishments may be placed in this category if the orders require preferential treatment in referral, and the concerns have been assigned a production urgency rating of V or above.

Orders from essential and locally needed firms not qualifying for a priority are, however, to be identified, so that they may receive preference in service over orders from less-essential activities.

The area manpower director is to determine the eligibility of employer orders for priority largely through consideration of three factors. These are (1) whether the employer is engaged in discriminatory or restrictive hiring practices, (2) the nature and extent of

<sup>1</sup> War Manpower Commission. Field instruction No. 416, November 27, 1944; Press release PM-4727, December 15, 1944.

in-plant utilization and training of workers, and (3) whether there is noncompliance with WMC programs and regulations.

*Selective Service and the manpower situation.*<sup>2</sup>—The National Headquarters of Selective Service, on December 11, 1944, acted upon the memorandum of the War Mobilization and Reconversion Administration which called for immediate action toward aiding the manpower situation. All State directors of Selective Service in the continental United States were notified that it is increasingly necessary that all persons, and particularly registrants 18 through 37 years, participate to the full extent of their abilities either in the armed forces or in the civilian war effort.

After this notification, the National Headquarters, on December 16, instructed all local boards as to the procedure to be followed in order that men eligible for induction but not in the armed services may meet their war responsibilities. According to these instructions, the local boards, in applying the tests for occupational deferment for registrants aged from 26 through 37, are to give greater consideration to those now engaged, or who become engaged, in war production or in support of the war effort than to those engaged in activities not supporting the immediate prosecution of the war. At the same time, National Headquarters notified all local boards that registrants now in war-supporting industries must stay there or run the risk of losing their occupational-deferment classifications, and that the rules for occupational deferment are to be applied with much stricter interpretation than in the past.

*Proposals of Management-Labor Policy Committee of War Manpower Commission.*<sup>3</sup>—Representatives of both the American Federation of Labor and the Congress of Industrial Organizations have joined with management and agriculture members on the Management-Labor Policy Committee in adopting an accelerated schedule of meetings in order to help speed the solution of urgent manpower problems in war production plants.

Turning attention to the foundry industry, long a bottleneck for many basic items of war production, the committee in two recent meetings examined the fundamental causes of lags in foundry production. From this examination, it was clear, WMC officials said, that production lags in foundries are due by no means solely to manpower shortages but are caused rather by a combination of factors, some of which are peculiar to the industry.

The Committee decided that recruiting cannot alone solve the production problems of foundries, and indicated that behind those problems are causes that only the combined efforts of labor, management, and Government can solve. These causes provide a base for a 10-point program to be used along with recruitment for attacking the production lag. The 10 points are—

1. Identification of urgent items of production.
2. Rescheduling of production within a plant or from plant to plant in order to assure that workers and facilities will be used on urgent production.
3. Action by military officials and War Production Board to specify, by directive, items that are critically needed.
4. Reduction of absenteeism and turnover.
5. Wages.
6. Improvement of means of transporting workers to plants.

<sup>2</sup> National Headquarters of Selective Service, Press releases S-53 and S-55, December 11 and 16, 1944.

<sup>3</sup> War Manpower Commission, Press release PM-4734, December 23, 1944.

7. Housing.
8. Transfer of workers within a plant or from plant to plant.
9. Use of more women in foundries.
10. Use of foreign workers (agricultural workers now in this country) as a last resort when domestic workers of any race or national origin are not available.

*WPB withdrawal of priorities in the event of manpower violations.*<sup>4</sup>—The War Production Board, on December 23, authorized the withdrawal or modification of material priorities when the Board determines that, as a result of failure to comply with war manpower programs, materials or facilities are not being used most effectively. Priorities or allocations are to be withdrawn or modified only after the WMC has certified to the Board that an employer has refused to comply with an employment-ceiling or hiring regulation within a reasonable time after he has been notified of his failure to do so.

If, in the opinion of the Board, there is reason to believe that, as a result of the failure to comply, materials or facilities are not being used most effectively for the prosecution of the war, it is to institute proceedings before one of its compliance commissioners to determine whether there is proof of this, and is to give the employer appropriate notice and opportunity for a hearing. This regulation applies to all kinds of priorities and allocations granted either before or after issuance of this regulation, including preference ratings, allotment numbers or symbols, and directions, authorizations, or grants of appeals to deliver or receive material, to manufacture products, or to use facilities.



## Labor Aspects of the President's Message to Congress<sup>5</sup>

EFFECTIVE wartime utilization and post-war improvement of the Nation's manpower resources were among the main points stressed in the President's message to Congress on January 6, 1945. To meet the increased production needs, the Chief Executive stated, it is necessary for every American engaged in war work to stay on his job, and for others, not engaged in essential work, to take war jobs. At the same time, to mobilize all the Nation's human resources for war, he urged upon Congress the adoption of a national service act, and gave the following as his three basic arguments: (1) It would insure the right number of workers in the right places at the right time, (2) it would provide supreme proof to all our fighting men that we are giving them what they are entitled to, which is nothing less than our total effort, and (3) it would be "the final, unequivocal answer to the hopes of the Nazis and the Japanese that we may become half-hearted about this war and that they can get from us a negotiated peace." In addition to these reasons for such legislation, the President stated that it would provide against loss of retirement and seniority rights and benefits, and would not mean a reduction in wages. In adopting such a measure, he points out, it is not necessary to discard the voluntary and cooperative processes which have prevailed heretofore.

<sup>4</sup> War Production Board, Regulations Applicable to the Operation of the Priorities System (Part 944, Priorities Reg. 26) December 23, 1944; War Manpower Commission, Press release PM-4735, December 27, 1944.

<sup>5</sup> White House. Press release, January 6, 1945.



Pending action by the Congress on the broader aspects of national service, the Chief Executive recommended the immediate enactment of legislation which will be effective in using the services of the 4,000,000 men that the Selective Service System has classified as 4-F, in whatever capacity is best for the war effort.

Manpower again was stressed when the President developed his statement that an "enduring peace cannot be achieved without a strong America—strong in the social and economic sense as well as in the military sense." Regarding this third item, he urged that America have universal military training after the present war. He emphasized the importance in the economic realm of fulfillment of the right to a useful and remunerative job, and pointed out that fulfillment of the rights to a decent home, a good education, good medical care, social security, and reasonable farm income, will make major contributions to achieving adequate levels of employment. Realization of the full-employment program envisages the cooperation of Federal, State, and municipal governments, business, labor, and agriculture, and the extensive development of our natural resources and promotion of other useful public works.

Post-war manpower was considered in connection with the President's plea for an expanded social-security program and adequate health and education programs, which must play essential roles in a plan designed to support individual productivity and mass purchasing power. He was of the opinion that the millions of productive jobs that a program of this nature could bring would be jobs in private enterprise—jobs based on the expanded demand for the output of our economy for consumption and investment. Through a program of this character, the President told Congress, "we can maintain a national income high enough to provide for an orderly retirement of the public debt along with reasonable tax reduction." This post-war tax modification, according to the President, should be designed to encourage capital to invest in new enterprises and to provide jobs.

## *Paid Vacations*

### **Paid-Vacation Provisions in Union Agreements, November 1944<sup>1</sup>**

#### *Summary*

CLAUSES providing for vacations with pay have become a standard feature of union agreements in most of the major industries, and recent efforts of the unions have been directed toward liberalizing such vacation allowances. At present, approximately 85 percent (11½ million) of all workers under agreement are covered by paid-vacation clauses. In manufacturing industries nearly 90 percent (7.8 million) and in nonmanufacturing industries nearly 75 percent (3.7 million) of the workers under collective-bargaining arrangements are now covered by paid-vacation clauses. The smaller proportion in nonmanufacturing is due to the fact that agreements for building-trades workers, longshoremen, actors, and musicians are almost entirely without paid-vacation provisions.<sup>2</sup>

#### *Extent of Paid Vacations*

Early in 1943 about 60 percent of all workers under union agreements were covered by paid-vacation provisions, as compared with only 25 percent in 1940. Although the nonoperating employees of railroads have received vacations with pay since 1941, operating employees were granted their first vacations by the terms of the agreement which settled the railroad dispute in December 1943. Prior to 1944 only a small proportion of the workers in the clothing industry were employed under agreements providing paid vacations, but recently negotiated agreements covering a large number of workers in both the men's and the women's clothing trades have included paid-vacation clauses. Other industries in which the proportion of workers eligible for paid vacations has increased considerably in the past year are lumber, machinery, cotton textiles, shoes and other leather products, furniture and finished wood products, and pottery. Coal miners were first granted vacations and vacation bonuses by their 1941 agreements. Vacation allowances also became widespread during 1941 and 1942 in the shipbuilding, aircraft, steel, and other metal industries.

<sup>1</sup> Prepared in the Bureau's Industrial Relations Division by James C. Nix under the supervision of Elizabeth F. Stark.

<sup>2</sup> In general, paid vacations are more common in nonmanufacturing than the above figures indicate since there is comparatively little union organization in retail trade and offices in which vacations are most common. See Monthly Labor Review, January 1945 (p. 80) for an analysis of vacation plans in nonunion as well as union plants in selected manufacturing and nonmanufacturing industries. Both that article and the report here given will be reprinted, with supplementary material, in a forthcoming bulletin of the Bureau of Labor Statistics.

Vacations with pay are least prevalent in seasonal industries and occupations (such as the building trades) in which the workers are employed by a number of different employers during the course of the year. However, the difficulty presented by diversity of place of employment is sometimes solved by pooling employers' contributions and paying vacation allowances from a central fund. Several agreements covering large numbers of workers in the men's and women's clothing trades, for example, provide such plans.

A few agreements make the granting of vacation rights contingent upon the financial status of the company. In such cases vacations are allowed only if the company's profits, sales volume, or dividends reach a specified level.

TABLE 1.—*Percent of Workers Under Agreements in Effect in 1944, Who Were Covered by Paid-Vacation Clauses*

Paid vacation clauses covering—		
90 percent or more workers	60-90 percent of workers	40-60 percent of workers
<b>Manufacturing industries</b>		
Agricultural machinery Aircraft Automobiles Baking Blast furnaces, steel works, rolling mills Cement Chemicals Clocks and watches Confectionery products Electrical machinery Flour and other grain products Glass, flat Hosiery Jewelry and silverware Machinery, excluding machine tools Meat packing Nonferrous metals Paper products Petroleum refining Rubber Sugar refining Woolen and worsted textiles	Breweries Canning and preserving foods Clay products, structural Clothing, men's Clothing, women's Concrete, gypsum, and plaster products Cotton textiles Dyeing and finishing textiles Furniture and finished wood Leather tanning and finishing Lumber Machine tools and accessories Newspaper printing and publishing Paper and pulp, primary Pottery Shipbuilding Shoes Steel products Tobacco	Book and job printing and publishing Glass containers Leather products, except shoes Silk and rayon textiles
<b>Nonmanufacturing industries <sup>1</sup></b>		
Building service Bus and streetcar, intercity and local Coal mining Crude oil and natural gas Electricity, water, and gas Hotels and restaurants Iron mining Laundry and dry cleaning Newspaper offices Nonferrous-metal mining Office, technical, and professional Railroads, operating and nonoperating personnel Telephone and telegraph service and maintenance Trade, wholesale and retail	Maritime, licensed and unlicensed personnel Nonmetallic mining and quarrying Trucking, local and intercity	

<sup>1</sup> Building-trades workers, longshoremen, fishermen, actors, and musicians are almost entirely without paid vacations.



## *Vacation Provisions in Nonmanufacturing-Industry Agreements*

### MINING INDUSTRY

The agreements in both anthracite and bituminous-coal mining provide a lump-sum vacation payment of \$50 to all employees with service records of a year or longer. In the anthracite agreement, payment of the full amount is predicated on an employee's having worked in each of the 24 semimonthly pay periods; employees who have not worked during all the pay periods receive a vacation allowance prorated according to the number of pay periods worked. The Appalachian agreement for the bituminous miners contains no specific rule other than the year's service requirement but states that the various district conferences shall adopt their own "proper rules and regulations." Both the anthracite and bituminous agreements provide for 10 days' time off; during 1943 and 1944, however, the miners agreed to accept a bonus in lieu of vacation, in order to take care of war production needs.

Practically all of the iron-ore miners are employed under paid-vacation clauses which allow 1 week after 3 years' service and 2 weeks after longer service. For about three-fourths of these workers the service requirements for 2 weeks' vacation is 15 years, and for the remaining workers 10 years.

Agreements covering about two-thirds of the nonferrous-metal miners under paid-vacation clauses allow 1 week's vacation after 1 year of service and 2 weeks after 5 years. Most of the remaining one-third of the workers are employed under single vacation plans which provide 1 week's vacation after a year of service.

About 60 percent of the workers employed under paid-vacation clauses in nonmetallic mining and quarrying are eligible for a maximum of 1 week's vacation, usually after a year of service. Most of the remaining workers are employed under graduated vacation plans which allow 1 week after a year of service and 2 weeks after service varying from 2 to 15 years.

### TRANSPORTATION INDUSTRY

Both operating and nonoperating employees in the railroad industry receive a week's vacation with pay, provided they have worked 160 days within the year. Railroad clerks' and telegraphers' agreements also provide 9 days' paid vacation after 2 years' service and 12 days after 3 years.

Although a considerable number of agreements in the trucking industry allow 2 weeks' paid vacation after 1 year of service, and some provide 2 weeks after longer periods of service, over half of the workers under paid-vacation clauses in this industry are covered by agreements which allow a week's vacation after a year of service.

In the street-railway and bus industry, the major portion of the workers are employed under agreements allowing a maximum vacation of 2 weeks; for about half of these workers the service requirement for 2 weeks' vacation is 1 year, while the remaining workers are employed under graduated vacation plans which allow a week's vaca-

tion after service varying from 6 months to 1 year and 2 weeks after service varying from 2 to 5 years.

Because the nature of their work requires prolonged absences from home, the vacation allowances for most maritime employees are comparatively liberal. Union agreements covering personnel on tankers commonly allow 30 days' paid vacation after a year of service for licensed officers and 21 days after a year for unlicensed personnel. On dry-cargo ships, officers usually receive 2 weeks after 1 year and the unlicensed personnel 1 week after 1 year and 2 weeks after 2 years.

#### PUBLIC UTILITIES

In the light and power industry, most of the workers are employed under agreements allowing a maximum of 2 weeks' paid vacation. The service requirement for a considerable number of these workers is 1 year, but the majority receive only a week's vacation after a year's service and must work from 2 to 5 years to be eligible for 2 weeks' vacation.

Most of the telephone and telegraph operating and maintenance workers under paid-vacation clauses are eligible for 1 week's vacation after 1 year of service, 2 weeks after 2 years, and 3 weeks after longer periods of service; for about half of those eligible for 3 weeks, the service requirement is 15 years, but for employees of the Western Union Telegraph Co. it is 30 years.

#### TRADE, CLERICAL, AND PROFESSIONAL WORKERS

In wholesale and retail trade the most prevalent type of vacation clause is that which grants 1 week's vacation after 1 year of service, although many agreements allow a maximum of 2 weeks, usually after 2 years' service.

Nearly all agreements covering office, technical, and professional workers provide for at least 2 weeks' paid vacation, usually after a year of service.

### *Vacation Provisions in Manufacturing-Industry Agreements<sup>a</sup>*

#### LENGTH OF PAID VACATIONS AND SERVICE REQUIREMENTS

During 1944 there was not only a great increase in the number of manufacturing workers covered by vacation provisions but also a considerable liberalization in the length of vacations allowed. As already noted, nearly 90 percent of all manufacturing workers employed under union agreements are covered by agreements which grant paid vacations. A year ago the most common type of vacation clause was that which granted a maximum of 1 week's vacation with pay after 1 year of service. At present 2 weeks' paid vacation, after specified service requirements, is provided in agreements covering about 56 percent (4.4 million) of those employed under paid-vacation clauses, while 37 percent (2.9 million) are under agreements providing a maximum

<sup>a</sup> Based on an analysis of over 2,000 union agreements in manufacturing industries. In the baking and printing and publishing industries, data on vacation provisions were compiled from questionnaires which were confined to provisions regarding the amount of vacation allowed and the length of service required.

allowance of 1 week. Two percent are eligible for a maximum of 3 weeks' vacation; for 1 percent the maximum is between 1 and 2 weeks; and for 4 percent the maximum allowance is not known.

TABLE 2.—*Percentage Distribution of Manufacturing Workers Covered by Paid-Vacation Clauses, by Length of Vacation and Service Requirements, 1944*

Length of vacation and service requirements	Per- cent	Length of vacation and service requirements	Per- cent
Plans providing maximum vacation of 1 week	37	Plans providing maximum vacation of 2 weeks—Continued.	
1 week after 6 to 10 months	1	1 week after 1 year, 2 weeks after 6 to 10 years	2
3 days after 6 months, 1 week after 1 year	5	1 week after 2 years, 2 weeks after 4 to 6 years	2
1 week after 1 year	28	2 days after 6 months, 2 weeks after 6 years <sup>1</sup>	3
1 week after 2 to 3 years	1	2 weeks after other periods of service	2
1 week after other periods of service	2	Plans providing maximum vacation of 3 weeks	2
Plans providing maximum vacation of over 1 week but less than 2 weeks <sup>1</sup>	1	1 week after 1 year, 2 weeks after 5 years, 3 weeks after 20 years <sup>2</sup>	2
Plans providing maximum vacation of 2 weeks	56	Maximum not known	4
1 week after 6 months, 2 weeks after 1 year	2	Total workers under paid-vacation clauses	100
2 weeks after 1 year	1		
1 week after 1 year, 2 weeks after 2 to 4 years	3		
1 week after 1 year, 2 weeks after 5 years	41		

<sup>1</sup> Nearly all of these agreements allow a maximum of 8 days' vacation after specified lengths of service ranging from 1 to 10 years.

<sup>2</sup> In addition to the minimum and maximum allowances, workers employed under this vacation plan also receive intermediate allowances graduated according to length of service.

<sup>3</sup> For female employees the service requirement for 3 weeks' vacation is 15 years.

**One-week maximum.**—Agreements covering 28 percent of the workers under paid-vacation clauses allow a week of vacation after a year of service. An additional 5 percent are employed under agreements which allow 3 days' paid vacation to employees with 6 months' service and 1 week to those with 1 year of service. A few agreements allow a full week's vacation after only 6 months' service and a few require employees to work as long as 5 years for a week's vacation.

In the following manufacturing industries, the majority of the workers covered by paid-vacation clauses are employed under plans providing for a maximum of 1 week after 1 year's service: Shipbuilding; textiles; men's clothing; shoes and other leather products; canning and preserving; stone, clay, and glass products; and lumber.

**Two-week maximum.**—Most agreements which provide for a maximum of 2 weeks' vacation have graduated plans which allow 1 week's vacation to employees having less service (most commonly 1 year) than is required for the full 2 weeks. For example, agreements covering over 40 percent of the workers employed under paid-vacation clauses provide for 1 week's vacation after 1 year's service and 2 weeks after 5 years.

In the following industries the majority of the workers covered by paid-vacation clauses receive a maximum of 2 weeks after meeting specified service requirements: Automobiles, aircraft, basic steel, machinery, rubber, aluminum fabrication, industrial chemicals, petroleum refining, and tobacco.

<sup>4</sup> In the few cases in which agreements allow a specified amount of time off with pay and give employees the option of using this time either as vacation or sick leave, the entire amount of paid time off is considered a vacation allowance in this report. However, if agreements allow both vacation and sick leave, only the vacation allowance is included in this report. Several agreements, particularly in the tobacco industry, provide a split vacation, 1 week of which is to be taken at Christmas. In such cases, if the agreement specifies that the second week's pay is a Christmas bonus, such bonus payment is not included in this report as a vacation allowance, even though the plant may actually be closed during the holidays.



*Three-week maximum.*—Practically all of the workers under agreements providing for a maximum of 3 weeks' paid vacation are employed in the meat-packing industry. These agreements allow 1 week's vacation after 1 year of service, 2 weeks after 5 years, and 3 weeks after 15 years for female employees and 20 years for male employees.

#### MINIMUM WORK REQUIREMENTS

Service requirements for vacation eligibility refer to the time an employee has been on the company pay roll, regardless of absences caused by personal reasons or temporary lay-offs resulting from slack work. In addition to service requirements, 20 percent of the agreements providing a week or more of paid vacation, covering 30 percent of the workers under such agreements, specify that an employee must actually have worked a specified minimum time during the preceding year in order to be eligible for the paid vacation. In industries which are unable to provide all their employees with continuous employment throughout the year, stringent work requirements may deprive many employees of the vacation benefits earned through length of service, even though they regularly report for work whenever they are needed. A number of agreements make allowance for absences beyond the employees' control by excluding from minimum work requirements time lost through lay-offs and sickness; in other words, in determining vacation eligibility such absences are counted as time worked.

Agreements providing vacation payments which are based upon a percent of annual earnings automatically reflect absences from work and therefore seldom set minimum work requirements. Since vacation pay equivalent to 2 percent of annual earnings approximates 1 week's pay based on a full year's work, employees who have lost more than a few days' work during the year do not receive a full week's pay under this type of vacation allowance unless, of course, they have worked sufficient overtime during the year to offset their absences.

Almost half of the workers in manufacturing industries covered by agreements with work requirements (most of them employed in the shipbuilding industry) must work a minimum of 1,200 hours during the year to be eligible for a vacation. For over a fourth of the workers covered by agreements with work requirements, the minimum specified is 60 percent of the pay periods during the year. Many of the agreements covering large steel companies have this requirement.

Table 3 shows the distribution of workers by minimum work requirements, expressed in various time units. Since very few agreements specify "full days," "full weeks," or "full months," it is impossible to convert all the work requirements to the same time unit. Only if the requirements are expressed in hours is there certainty that the number given signifies actual work time; where the time is stated in minimum days, weeks, months, or pay periods, the employees usually receive credit for the entire time unit if they work any part of it. Thus, an agreement with a minimum time requirement of 32 weeks might conceivably allow an employee a vacation if he worked only 1 day in each of those weeks.

TABLE 3.—*Percentage Distribution of Manufacturing Workers Covered by Paid-Vacation Clauses, by Type of Work Requirements*

Type of work requirements	Percent <sup>1</sup>	Type of work requirements	Percent <sup>1</sup>
Specified hours per year.....	63.4	Specified weeks per year.....	4.0
480 to 500 hours.....	.1	12 to 17 weeks.....	.2
750 to 900 hours.....	1.0	20 to 30 weeks.....	1.6
1,000 to 1,120 hours.....	2.8	32 weeks.....	.5
1,200 hours.....	48.3	35 to 39 weeks.....	.5
1,250 to 1,560 hours.....	3.7	40 to 42 weeks.....	1.0
1,600 hours.....	2.0	44 to 48 weeks.....	.2
1,650 to 1,920 hours.....	4.9	Specified months per year.....	2.0
2,040 to 2,350 hours.....	.6	3 months.....	.1
Specified days per year.....	2.1	5 to 6 months.....	1.5
75 days.....	( <sup>2</sup> )	8 to 9 months.....	.4
90 days.....	( <sup>2</sup> )	Specified percent of pay periods.....	28.5
100 to 120 days.....	.2	50 percent.....	2.0
150 to 180 days.....	1.3	60 percent.....	26.2
195 to 225 days.....	.6	65-75 percent.....	.3
		All types of work requirements.....	100.0

<sup>1</sup> Percentages are based on the number of workers covered by agreements specifying work requirements. As indicated in the preceding discussion, no work requirements are specified in the agreements under which 70 percent of the workers eligible for paid vacations are employed.

<sup>2</sup> Less than a tenth of 1 percent.

#### WORK REQUIREMENTS IN RELATION TO TYPE OF VACATION PLAN

The stringency of the specified work requirements seems to have no relation to the liberality of the vacation allowances; although almost all (97 percent) of the workers covered by the comparatively low requirement of 1,200 hours per year receive a maximum of only 1 week's vacation, almost an equal proportion (92 percent) of those covered by 1,600-hour requirements also receive the 1-week maximum vacation. Of those who must work between 1,250 and 1,560 hours per year in order to be eligible for vacations, 42 percent are employed under vacation plans which allow more than a week provided they meet additional service requirements.

Table 4 gives the proportion of workers employed under the most prevalent types of work requirements specified under the various vacation plans. These include 88 percent of all the workers under agreements with work requirements; 12 percent of the workers are employed under agreements having other types of work requirements (see table 3).

TABLE 4.—*Percentage Distribution of Manufacturing Workers Covered by Paid-Vacation Plans With Specified Work Requirements, by Type of Plan*

Plan providing vacation of—	Work requirement				
	Hours per year <sup>1</sup>				60 per- cent of pay periods
	1,200	1,250- 1,560	1,600	1,650 and over	
	Percent	Percent	Percent	Percent	Percent
1 week after 1 year.....	97	58	92	84	.....
3 days after 6 months, 8 days after 5 years <sup>2</sup> .....		19			
1 week after 1 year, 2 weeks after 2 years.....		5			
1 week after 1 year, 2 weeks after 5 years.....	1	10	4	3	90
1 week after 1 year, 2 weeks after 6 years.....				9	1
Other.....	2	8	4	4	9
Total workers under specified requirement.....	100	100	100	100	100

<sup>1</sup> Work requirements expressed in days were converted to hours, on the assumption that full 8-hour days must be worked to satisfy the requirement.

<sup>2</sup> In addition to the minimum and maximum allowances, workers employed under this vacation plan also receive 5 days after 1 year and 6 days after 2 years.

## EFFECT OF LAY-OFFS ON VACATION ELIGIBILITY

Many agreements provide that a lay-off in excess of a specified period causes a break in continuous service and the forfeiture of all rights based on seniority, including vacation rights. For example, a typical clause reads: "Length of service \* \* \* will be computed on total service with the corporation either continuous or intermittent; except that in the case of employees who \* \* \* have been absent from the corporation's employment for a period exceeding 2 years due to being laid off for lack of work, then the service of such employees shall be computed from the time they were reemployed after such lay-off exceeding 2 years." On the other hand, many agreements make no reference to loss of seniority, and some specifically provide that continuous service shall not be considered broken by lay-off. For example, "Service shall be considered broken when an employee voluntarily quits or is discharged but shall not be considered broken \* \* \* by lay-off necessitated by production requirements."

Agreements covering 43 percent of the workers do not mention the loss of accumulated service by lay-off; 6 percent are employed under agreements which specify that seniority rights are retained during lay-off, although most of these workers must notify their employers at specified intervals that they are available for reinstatement on the seniority list.

The remaining 51 percent of the workers are employed under agreements which provide that continuous service is broken by lay-off in excess of a stated period. Agreements covering two-thirds of these workers specify a definite period of time; for the remaining one-third, the allowed maximum is related to length of service, as, for example, a maximum of 3 years' lay-off for employees with 5 years' service and 2 years' lay-off for those with less than 5 years' service. The following tabulation shows the effect of lay-offs on seniority and vacation eligibility.

	Percent of workers
No mention of loss of seniority when laid off.....	43
Seniority retained during all lay-offs.....	6
Seniority retained for specified maximum periods of lay-off.....	51
1 year.....	14
1½ years.....	1
2 years.....	17
3 years.....	2
5 years.....	1
Period related to previous length of service.....	16
Total workers under agreements examined.....	100

Most of the agreements examined are not clear as to whether service continues to accumulate during a period of lay-off; they either do not mention the point or merely say that seniority is "retained" during lay-off. About 12 percent of the workers are employed under agreements which specify that service accumulates during lay-off; time so lost is credited toward their service requirements for vacation, provided the lay-off is not of such length as to constitute a break in service. In contrast, 6 percent of the workers are employed under agreements which specify that time lost because of lay-off is not credited in computing length of service. These employees re-



ceive credit only for time actually worked in accumulating the length of service necessary for paid-vacation eligibility.

#### VACATION PAY

Vacation pay is equivalent to normal or regular wages for about 60 percent of the workers covered by agreements providing paid vacations; that is, vacation pay is based on a 40-hour workweek. The rate of pay is either the employee's regular rate at the time of vacation, or his average hourly earnings exclusive of overtime calculated over a specified period preceding the vacation. In the following manufacturing industries 40 hours' vacation pay is the prevalent practice: Automobiles, men's clothing, canning and preserving, shoes and other leather products, machinery, shipbuilding, cotton textiles, and tobacco.

For 8 percent of the workers covered by paid-vacation clauses, vacation pay is based on a 48-hour workweek but usually at the employee's straight-time rate of pay. Very few of the agreements which allow 48 hours' pay include earnings based on overtime penalty rates. Aluminum fabrication is the only industry in which the majority of the workers covered by paid-vacation clauses receive 48 hours' pay. However, the large majority of all workers eligible for 48 hours' pay are employed in the aircraft industry.

An additional 8 percent of the workers eligible for paid vacations are employed under agreements which are not clear as to whether pay includes an allowance for overtime earnings. These agreements merely provide for "a week's vacation with pay" without specifying the number of hours paid for.

Agreements covering 12 percent of the workers under paid-vacation clauses provide that vacation pay shall equal the average weekly earnings during a specified period, most commonly the month preceding the vacation, although some agreements mention the social-security quarter preceding the vacation. This form of payment would include overtime, but any absences from work during the period over which earnings are averaged would also be reflected in the vacation pay. Many of the agreements in the steel industry base the vacation pay on the average number of hours worked per week during some period preceding the time of vacation, but not less than 40 hours or more than 48.

For about 8 percent of the workers eligible for paid vacation, the vacation pay is computed as a percent of annual earnings, usually 2 percent but sometimes  $2\frac{1}{2}$  percent. Overtime earnings are generally included in the annual earnings, although a few agreements specifically exclude overtime earnings. Of course, this method of computing vacation pay would reflect absences from work during the year. It may be noted, in this connection, that 2 percent of annual earnings would approximate a week's pay, provided enough overtime was worked to offset absences from work during the year.

A few agreements provide a flat amount of vacation pay to all employees, regardless of length of service or salary level. Other agreements mention other methods of payment, such as the average earnings of all workers in the department during some specified week, 3 cents per hour for all time worked during the year, etc.

Practically all of the agreements which refer to the time of payment of vacation allowances provide for payment prior to vacation, usually the pay day preceding the vacation. Only a few agreements specify payment on the first day of the employee's return to work or on the first pay day after his return.

#### BONUS IN LIEU OF VACATION

In normal times the unions generally oppose the substitution of a bonus for a vacation, and a number of agreements specifically prohibit this practice. Because of war conditions, however, more than a third of the agreements providing paid vacations, covering slightly over half of the workers employed under such agreements, specify that a vacation bonus may be given in lieu of time off, under certain circumstances.

Over a fourth of the workers covered by agreements which mention a bonus are employed under agreements which state, without qualification, that a bonus will be given in lieu of vacation. Agreements covering more than half of the workers give the employer the option of giving a bonus instead of a vacation, although frequently this option is limited to considerations of war production requirements.

A relatively small number of agreements give the employee the option of taking a vacation bonus instead of time off. Other agreements provide that a bonus may be given in lieu of vacation by mutual consent of the employer and union.

#### VACATION RIGHTS WHEN LEAVING JOBS

Agreements covering about a third of the workers eligible for paid vacations provide that termination of employment through voluntary leaving, lay-off, and in some cases discharge shall not result in loss of vacation allowances already earned. The remaining two-thirds of the workers are covered by agreements which either specifically prohibit the granting of vacation allowances upon termination of employment or do not refer to the matter.

Many agreements provide that men leaving for military service, who have not received their vacations during the year, shall be granted vacation pay upon induction, and some companies continue to forward vacation pay checks each year to their employees in military service.

#### TIMING OF VACATION PERIOD

Agreements often specify the period during which vacations shall be taken, usually the summer months. Ordinarily the employees are allowed their choice of vacation time during the specified period, and frequently employees with most seniority are given first choice. In order to safeguard continuous production, some agreements specify that no more than a given percentage of the employees of any department may take their vacations at the same time, although most agreements merely state that the employee's choice of vacation time must not interfere with the efficient operation of the plant. In such cases, presumably, it is the foreman's responsibility to schedule vacations so that there is no interference with efficient production. Some agreements, mostly in seasonal industries, provide that the company

will shut down the plant for the vacation period during the slack season. The week of the Fourth of July is the time most frequently mentioned.

Many agreements specify that the vacation must be taken in the year in which it is earned; otherwise, vacation rights are forfeited. A few agreements provide that employees may take their vacations the following year if they forego their vacations at the request of the company. Some agreements allow employees entitled to more than 1 week of vacation to split their vacation time into two or more periods.



### Vacations with Pay in Great Britain<sup>1</sup>

ABOUT 10 million manual workers in Great Britain were covered by annual vacations-with-pay provisions in 1944, as well as large numbers of nonmanual workers such as shop assistants, clerks, and salaried workers generally. In March 1938, workpeople covered by vacation systems numbered 7½ million—including both manual workers and nonmanual workers receiving not more than £250 a year or unemployed. The large-scale increase in coverage resulted from expansion of both collective agreements and statutory orders, the two methods of establishing vacation schemes. A wide extension of collective agreements took place after March 1938. Larger numbers of persons were covered than before the war, owing to the Conditions of Employment and National Arbitration Order of 1940, which stipulated that conditions recognized by organizations representing substantial proportions of the employers and workers in any industry and district must be observed by employers generally in that industry and district. In addition, statutory orders under the Holidays with Pay Acts of 1938 directed that vacations with pay be granted to workers for whom statutory minimum rates of wages were fixed by trade boards and other specified agencies in Great Britain and Northern Ireland. There is considerable diversity in the terms of the arrangements in operation in different industries.

*Vacations provided by collective agreements.*—Important industries in which vacations with pay are provided by collective agreements include mining and quarrying; treatment of nonmetalliferous-mining products; bricks, pottery, glass, chemicals, etc.; metal, engineering, and shipbuilding; textiles and clothing; woodworking; food and drink; paper, printing, etc.; building and allied industries; transport; public utility services; and distributive trades.

Usually the length of the paid vacation varies from 6 to 12 days, more than 12 days being exceptional. The 12 days generally consist of 6 consecutive days of annual vacation and 6 public or statutory holidays. If the period is 6 days or 1 week, payment usually is made for a week's annual vacation, with no payment for public holidays, except for a special overtime rate to workers who must work on such days.

Most agreements make the vacation dependent on the worker's having served a specified period, usually 12 months. Some require that the qualifying service be within a set period, while in other in-

<sup>1</sup> Data are from Great Britain, Ministry of Labor Gazette (London), September 1944.



stances it must be immediately preceding the vacation. A common stipulation is that the service must be continuous, although many agreements provide that it need not be with the same employer. Arrangements are frequently made whereby workers who have not served the required period may receive a proportionately reduced vacation. The qualifying periods are not often required for statutory holidays, although other qualifications (e. g., a good record as to time lost) generally are made. Agreements seldom authorize vacations without any prerequisites, but the coal-mining industry is an important exception. A mining worker is entitled to a vacation provided he is on the books of the colliery on the last pay day before the annual holiday is taken.

The period during which the holidays are to be taken usually is stated to be between specified dates in the summer, with the employer setting the exact time and deciding whether individual vacations shall be "staggered" or whether the plant shall be closed down for the vacation period. Payments are made at the worker's usual rate of pay, at a flat rate different from the normal rate, or (for piece workers) at a rate calculated by averaging the worker's weekly earnings over a stated period of time. Occasionally the vacation payments are made from funds made up from equal contributions by employer and employed, but this system is not very widespread; the principal example of this method of financing is the boot and shoe industry.

*Vacations provided by statutory orders.*—In practically all industries in which statutory minimum rates of wages have been fixed, the Trade Boards have established a paid vacation of 6 consecutive days to be granted during the vacation season in each year. Usually, a qualifying period of 48 weeks must have been served by the worker to receive the full vacation, with a shorter period granted for those with shorter service. Payment is usually at the worker's regular rate. No provision is made, by the orders, for payment for public holidays, but, in some of the trades, voluntary agreements arrange for such payments. Special orders cover vacations with pay in the road-haulage industry and in agriculture.

# Industrial Injuries

## Industrial Injuries to Women Workers <sup>1</sup>

### Summary

WORK injuries to women employed in industry have increased sharply during the past 3 years. Although precise figures are not available on a Nation-wide basis, the reports from certain States for which data on this point are shown reveal substantial increases in both number and rate of occupational injuries to women workers.

As compared with injury rates for men, the record for women, based on an inquiry made by the Bureau of Labor Statistics for a variety of plants, indicated that women workers usually work as safely as men and in many cases more safely, except possibly on heavier types of jobs. This is revealed by their accident-frequency rate, which in practically all plants studied was less than that of men. Further, it appears that their employment involves no great problem from the safety point of view.

### *Number and Proportion of Injuries to Women in Certain States*

No estimates are available on the total number of industrial work injuries to women. Industrial establishments do not, as a rule, compile their injury data by sex. Workmen's compensation boards, another important source of data, usually do not require the reporting of all disabling injuries and frequently do not compile data by sex for those injuries that are reported.

Enough data are available, however, to indicate a substantial increase in work injuries to women in industrial employment. In Illinois, 3,077 disabling injuries were reported in 1940 under the requirements of the workmen's compensation law. In 1943, the number of such reported injuries had more than doubled, to 6,792. In 1940, the reported injuries to women employees were 7.9 percent of the total number of injuries reported. In 1943, they comprised 12.4 percent.

In Wisconsin, reports to the Industrial Commission indicated that women sustained 7.1 percent of all reported work injuries during 1940. In 1943, however, the number of injuries reported for women was nearly 3 times as large, and amounted to 14 percent of the total. By May of 1944, this percentage had risen to 17.1 percent.

In Pennsylvania, about 3,600 women received compensation for disabling injuries during 1940. This number was about 6.4 percent of the total of 56,500 cases compensated that year. During 1942,

<sup>1</sup> Prepared in the Bureau's Industrial Hazards Division by Max D. Kossoris.

this number increased to 5,200 out of a total of 61,100, or 8.5 percent. The number of compensated injuries for women took a sharp upward turn during 1943, with about 9,000 injuries out of a total of 63,600, or 14.0 percent. During the 4-year interval the total compensated injuries increased by 7,100, of which 5,300 were injuries to women.

The experiences of these three States illustrate the experiences of other States from which data are available. The trend was the same almost everywhere, involving a decided rise in the total number of work injuries and an even greater increase in disabling injuries to women workers.

### *Relative Incidence of Accidents to Women*

It was inescapable that more women should be hurt at their jobs as the number of women employed in industry, in wartime, increased. It is of interest also to know whether women are injured more frequently than men and whether they are, for any reason, less-safe workers and consequently greater accident risks for employers.

Safety men consulted on this question generally were of the opinion that women workers worked as safely as men, and frequently more so—provided they were placed at tasks they could handle. These safety engineers, however, had very little factual data to support their opinions.

In order to obtain such facts, the Bureau of Labor Statistics canvassed several hundred manufacturing plants and received usable data from 68 establishments. These covered a wide variety of manufacturing activities, including the production of paper, aircraft, salt, tractors, chemicals, trailers, and steel and rubber products.

To provide comparable injury rates for men and women, frequency rates were computed for each sex. The frequency rate is the average number of disabling injuries per million employee-hours worked, and may be roughly compared to the number of workers injured for every 500 workers employed.

The frequency rates of the reporting plants bear out the opinion of the safety engineers cited earlier. In a group of 5 paper mills in the East, the composite frequency rate for men in 1943 was 15.6; the rate for women workers was 11.3. During the first 6 months of 1944 the rate for the men rose to 15.9, and that for the women to 12.6.

A large paper mill in the Middle West experienced a rate of 30.0 for men during 1943, and practically the same rate (30.6) for the first half of 1944. As the women's rates of 11.2 and 29.5 indicate, the experience of the women employees was decidedly better during 1943, but differed little from that of the men during the 1944 period.

In a metalworking plant, the comparative rates for men and women during the first quarter of 1944 were 43.6 and 31.6 respectively. Because of intensified accident-prevention efforts, these rates during the next quarter dropped to 36.2 for the men and 5.1 for the women employees.

For a sizable group of rubber plants, the 1943 frequency rate for men was 14.9, and that for women, 6.4.

Most of the reporting plants told much the same story: women were either as safe workers as were the men, or they were safer.



The point was frequently made that women were more concerned about their personal appearance and therefore took greater precautions not to get hurt. A large proportion of plants claimed that women reported for first aid for minor injuries which men generally tended to ignore, and that women took time off for injuries which normally would not cause men to take time off. On the other hand, an almost equal proportion of plants reported that there was no difference in either of these respects between male and female employees.

In considering the experiences of the 68 plants, the question as to whether women were engaged in jobs as hazardous as those filled by men immediately presents itself. Many of the reporting plants indicated that there was no difference in the jobs filled by workers of the two sexes. A consideration of the various factors involved in this problem, however, leads to a reasonable presumption that few of the activities in these plants could be considered hazardous. Plants which apparently had greater variety of hazards reported that women were employed essentially at light, routine, repetitive operations and that they were placed at these jobs because they were not able to lift as much or because they were faster at these types of operations than men. At this type of work, there was little question that women were no worse and were frequently better accident risks than men. Not having employed women at the more hazardous jobs, however, these plants were not in a position to know whether women were the equal of men on all jobs.

An interesting and a very logical answer to this problem was provided by a study of injuries to women in 9 large shipyards. The study was made at the request of the Maritime Commission in connection with its effort to reduce work injuries in shipyards, practically all of which are now working on Government orders.

The conclusions from this study, which covered about 33,250 employees with a total of 3,945 disabling injuries, and which will be discussed in some detail in a subsequent article, are as follows:

1. In heavier types of work, such as assembling, welding and burning, which require considerable moving about, climbing, and working in awkward or strained positions, women's accident experience was worse than that of men. Evidences of this fact are the comparative frequency rates of men and women doing identical work. Male welders averaged 41.3 disabling injuries per million hours, whereas women welders averaged 64.6, or half again as many. In one of the 9 yards, the rate for women welders was 123.4. In this yard, however, the rate for male welders was also very high, 92.4. Nearly the same ratio was found in assembly work. Men had an average frequency rate of 58.5, and women a rate of 74.6.

2. At light, repetitive work, the injury experience of women was nearly the same as that of men. In the electrical shops of the shipyards studied, the frequency rate for men was 35.6, and that of women 39.1.

The reasons for the adverse experience of women workers at heavy work appeared to be partly anatomical and partly a matter of their habitual activities. Women are not so heavily boned or muscled as men and consequently are less able to lift heavy weights or climb about as readily on elevations. Their muscles are not accustomed to

this type of work, although much of this difficulty can be overcome with continual practice.

In manufacturing plants, in which women are frequently assigned to the lighter and less-hazardous operations, and have fairly continuous supervision, the following conclusions are suggested by the reports of cooperating plants as well as by discussions with safety engineers: Women work as safely as, or more safely than, men because they are more likely to follow instructions closely, they are more concerned about their appearance and more afraid of getting hurt, they are anxious to prove themselves as good as the men, and they are less inclined than are men to "show off" by taking unnecessary chances before either members of their own sex or those of the opposite sex.

### *Special Accident Problems in Employment of Women*

The plant reports brought out some interesting problems in the task of accident prevention as applied to women.

Many of the women who have gone to work in industrial plants during the present war had never been engaged at such work before. Many came from homes, and others from offices, stores, and a wide variety of business services. They were accustomed to neither factory routine nor the hazards of plant operations. To make matters worse, both supervision and accident prevention failed to keep pace with the rapid increases in industrial employment. Supervision had to be spread thinner, and safety men did not find it possible to eliminate hazards quickly or train supervisors and workers as to proper and safe ways of carrying on their operations, many of which differed widely from those normally carried on in these plants during times of peace.

The most frequent complaint voiced in reports to the Bureau was the difficulty of inducing women to wear proper shoes and adequate protection for their hair, particularly necessary when their work involved the operations of moving machinery. Although scalping accidents resulting from loose hair catching on revolving drills and other types of revolving machinery are not frequent, they can be very severe. The New York State Department of Labor reported 11 serious head injuries during 1943 from this cause.

The difficulty in persuading women to wear proper protective head coverings appears to be a matter of pride in their personal appearance. As one safety engineer commented, women seemed to be reluctant to hide their crowning glory—particularly when much effort or expense had been spent on its beautification—beneath an unattractive cap. In one plant, women workers refused to wear protective caps furnished by the company because they were all of one color. Only after the company had provided the caps in a variety of colors, and gave each woman an opportunity to choose the color she thought most becoming to her, did the company succeed in enforcing its safety rule. One engineer, noting this difficulty, reported: "Steps taken to overcome this have been largely to persuade them that their personal appearance while at work would not suffer and that it certainly would mean less chance of being damaged for other occasions." Another safety engineer commented: "Strict enforcement policy seems to be the only solution; women prefer to dress and act differently from others of the sex."

On the other hand, one report stated:

When properly trained and selected for the job, I find they [women] are cleaner and more safety conscious than men, possibly because of their desire to prevent any injury that may detract from their feminine charms. With this attitude they also pay particular attention to their safety equipment and use it constantly.

Although the difficulty of persuading workers to wear proper shoes applies to men as well as women, it is more pronounced in the case of women because the shoes many of them normally wear are so different from safety shoes. For a man, the differences between the shoe he normally wears and a safety shoe consist merely of a steel toe and a sturdier construction in the latter. For the woman it frequently means this type of shoe instead of one with an open toe, open heel, or high heel. The fact that safety shoes do not require shoe coupons frequently helps to solve the problem because it leaves the coupon for a purchase of another—and probably very different—type of shoe.

A considerable variety of work uniforms, as well as the widespread custom in some areas of wearing slacks, simplifies the problem of persuading women to wear clothes adapted to shopwork. This is particularly true if management launders the uniforms and provides adequate and clean locker facilities.

Generally speaking, the employment of women offers no great difficulties, from the safety man's point of view. Inexperienced workers need training and close supervision, whether they are men or women. In the case of both sexes, adequate placement methods are essential. If the requirements of some jobs are such that women cannot perform them as safely as men because of the physical requirements involved, then it is safer not to employ them at such occupations. Differences between individuals—in height, strength, agility, and quickness of reaction—may be more important than general differences between sexes. The last few years have demonstrated that women can perform satisfactorily many types of work for which they formerly had been believed utterly unsuited. The development of special safety rules for women workers is not necessary; a plant that is safe for men is also safe for women.



### Industrial Injuries, September 1944

ACCORDING to reports from over 12,500 manufacturing establishments, the industrial injury-frequency rate for September was nearly 2 points lower than those for August and July. The cumulative rate of 19.4 for the first 9 months of 1944 compared favorably with the rate of 20.7 for the comparable period in 1943. Nevertheless, the monthly rates for 1944 show a definite upward trend, indicating that the relative incidence of work injuries per million employee-hours generally has been unfavorable since the beginning of the year.

The reports covered nearly 7,000,000 employees and a total of nearly 25,000 disabling injuries. A conservative estimate based on these rates indicates that the total of all work injuries during the month of September amounts to about 56,000, with a direct loss of about 1,120,000 employee-days of productive effort.



Fatalities amounted to 0.4 percent of the total injuries and permanent impairments to 3.1 percent. As it is impossible to anticipate during any one month all the injuries that will later result in death or permanent impairment, these percentages undoubtedly are understatements.

The decrease in the frequency rate from 20.2 in August to 18.2 in September indicates that about 9,000 fewer workers were injured in manufacturing industries during the latter month. This decrease was reflected in 55 of the 87 manufacturing industries surveyed. Nineteen of the 55 industries with lower frequency rates experienced decreases from their August rates of 5 points or more. In 14 of these industries, the injury rates were the lowest reported during 1944.

The lowest cumulative rate for the first 3 quarters of 1944 was that of 5.9 in the women's clothing industry. Eight other industries had cumulative injury-frequency rates of less than 10. In sharp contrast to this, 7 industries had cumulative frequency rates above 40. Sawmills again stood out, with the highest reported rate of 55.3.

*Industrial Injury-Frequency Rates <sup>1</sup> for Selected Manufacturing Industries, September 1944, With Cumulative Rates for 1944*

Industry <sup>2</sup>	September 1944		Frequency rate	
	Number of establishments	Frequency rate <sup>3</sup>	1944: January-September cumulative <sup>3</sup>	1943: Annual <sup>4</sup>
Agricultural machinery and tractors.....	54	23.0	22.5	19.9
Aircraft.....	51	7.5	9.3	9.7
Aircraft parts.....	297	13.7	12.6	11.7
Ammunition, 20 mm. and over.....	356	22.5	24.8	19.0
Ammunition, small-arms.....	22	7.3	7.1	5.1
Baking.....	7	16.2	20.0	20.5
Bolts, nuts, washers, and rivets.....	35	29.8	30.1	21.7
Book and job.....	45	11.1	11.9	10.5
Boots and shoes, other than rubber.....	294	13.6	14.9	11.8
Canning and preserving.....	47	31.7	25.7	25.3
Chemical products, not elsewhere classified.....	79	12.3	12.2	17.1
Chemicals, industrial.....	313	12.7	15.4	18.3
Clothing, men's.....	506	12.3	11.2	7.6
Clothing, women's.....	395	5.6	5.9	4.6
Commercial and household machines.....	52	17.7	19.7	18.0
Concrete, gypsum, and plaster products.....	113	28.8	36.5	40.8
Confectionery.....	8	14.7	16.5	19.4
Construction and mining machinery.....	112	24.3	28.3	29.5
Cotton goods.....	209	15.0	15.2	16.7
Cutlery and edge tools.....	33	26.6	27.1	25.9
Drugs, toiletries, and insecticides.....	77	19.7	20.0	18.5
Dyeing and finishing.....	43	22.6	25.0	23.6
Electrical equipment and supplies.....	579	11.5	11.0	10.9
Engines and turbines.....	56	13.7	12.3	18.2
Explosives.....	91	8.3	6.5	5.3
Fabricated structural steel.....	100	29.9	35.3	34.7
Flour, feed, and grain mill products.....	8	23.0	23.2	30.2
Food products, not elsewhere classified.....	37	29.8	27.0	31.2
Food-products machinery.....	24	34.1	31.7	27.2
Forgings, iron and steel.....	145	36.4	35.4	40.8
Foundries, iron and steel.....	568	42.1	43.6	43.4
Furniture, except metal.....	68	25.9	27.6	27.0
General industrial machinery.....	676	21.9	23.4	23.0
Glass.....	40	12.7	18.1	20.2
Guns and related equipment.....	100	16.4	17.1	15.5
Hardware.....	39	17.6	19.6	20.2
Heating equipment, not elsewhere classified.....	53	24.8	31.2	36.3
Iron and steel.....	209	9.0	9.7	10.0
Iron and steel products, not elsewhere classified.....	309	26.7	28.8	26.4
Knit goods.....	82	12.3	11.6	8.3

See footnotes at end of table.

Industrial Injury-Frequency Rates<sup>1</sup> for Selected Manufacturing Industries, September 1944, With Cumulative Rates for 1944—Continued

Industry <sup>2</sup>	September 1944		Frequency rate	
	Number of establishments	Frequency rate <sup>3</sup>	1944: January-September cumulative <sup>3</sup>	1943: Annual <sup>4</sup>
Leather.....	28	24.4	29.5	29.4
Machine shops, general.....	201	18.2	23.8	25.3
Metalworking machinery.....	691	17.7	18.2	19.2
Miscellaneous lumber products, not elsewhere classified.....	44	45.0	40.3	37.1
Miscellaneous manufacturing.....	384	15.0	15.9	14.2
Motor vehicles.....	106	15.2	13.7	13.6
Motor-vehicle parts.....	75	27.7	26.4	22.0
Nonferrous-metal products.....	569	27.4	27.1	25.0
Ordnance and accessories.....	38	15.6	22.8	14.0
Paints and varnishes.....	67	16.8	19.3	19.0
Paper.....	273	30.7	30.3	31.5
Paper boxes and containers.....	413	29.7	26.2	22.7
Paper products, not elsewhere classified.....	44	21.3	21.6	26.9
Paper and pulp (integrated).....	103	27.2	26.4	25.5
Planing mills.....	53	47.7	48.4	44.2
Plate fabrication and boiler-shop products.....	94	44.0	54.9	44.3
Plumbers' supplies.....	19	45.1	18.2	21.9
Pottery.....	37	21.8	18.7	19.5
Pulp.....	26	44.9	36.6	32.6
Radios and phonographs.....	197	7.9	8.6	7.9
Railroad equipment.....	36	24.6	23.4	25.0
Rayon and allied products (chemical).....	22	7.6	6.8	10.5
Rubber boots and shoes.....	14	7.4	13.3	10.7
Rubber and rubber products, not elsewhere classified.....	98	15.8	16.8	19.7
Rubber tires.....	42	14.3	14.5	14.5
Sawmills.....	40	45.2	55.3	58.4
Screws and screw-machine products.....	75	20.1	26.4	19.2
Sheet-metal work.....	39	40.8	44.0	26.5
Shipbuilding.....	241	21.3	24.7	31.5
Sighting and fire-control equipment.....	36	6.7	8.6	9.3
Silk and rayon products, not elsewhere classified.....	50	14.5	14.5	13.9
Slaughtering and meat packing.....	619	37.5	36.0	47.6
Small arms.....	56	15.4	14.4	8.6
Soap and glycerin.....	9	7.0	9.3	11.4
Special industry machinery, not elsewhere classified.....	95	23.4	23.9	24.6
Stamped and pressed metal products.....	249	32.6	37.5	28.8
Steam fittings and apparatus.....	57	18.0	25.0	30.5
Stone, clay, and glass products, not elsewhere classified.....	82	18.9	15.4	19.3
Tanks, military.....	12	16.5	13.9	12.2
Tank parts, military.....	51	14.1	20.6	16.2
Textile machinery.....	11	15.9	23.1	14.6
Textile and textile-mill products, not elsewhere classified.....	184	19.2	19.1	20.6
Tin cans and other tinware.....	22	13.0	19.2	17.3
Tools, except edge tools.....	65	27.3	26.1	25.5
Wire and wire products.....	142	19.8	23.5	21.4
Wooden containers.....	55	45.9	53.9	48.8
Woolen goods.....	162	19.3	19.2	19.8

<sup>1</sup> The frequency rate represents the average number of disabling industrial injuries for each million employee-hours worked.

<sup>2</sup> A few industries have been omitted from this table because the coverage for the month did not amount to 1,000,000 or more employee-hours worked.

<sup>3</sup> Computed from all reports received for the month; not based on identical plants in successive months.

<sup>4</sup> Based on comprehensive annual survey.

## Labor Organizations

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### Convention of American Federation of Labor, 1944<sup>1</sup>

THE major issues before the 600 delegates to the sixty-fourth annual convention of the American Federation of Labor, held in New Orleans from November 20th through the 30th, concerned (a) support of the war effort to bring about an early and complete victory, (b) a revision of the War Labor Board wage policy, (c) development of a post-war program, with emphasis on labor's fullest cooperation with the veterans, (d) labor unity, (e) the world labor conference, (f) antilabor legislation, and (g) racial discrimination.

#### *War Effort*

The immediately urgent need for increased production in the current war program received special emphasis during the convention through the speeches of four high-ranking Army and Navy officers, and through the urgent telegrams received from Generals Eisenhower, Marshall, and MacArthur, and from President Roosevelt. High praise was bestowed on labor for its production record, but with it went a warning that the war is not yet won and that the increased military operations of recent date will demand more and more supplies from the home front. In answer to a specific plea from General Somervell for 100,000 more workers needed in plants producing critical war matériel, President Green called a special meeting, during the convention, of the presidents of the molders', machinists', electricians', textile, and garment workers' unions to discuss ways in which these unions might meet the manpower crisis. This action received the special thanks of General Eisenhower, conveyed to the convention through a cablegram. The convention unanimously voted to uphold the no-strike pledge, with the understanding that it should not be used as a subterfuge to deprive labor of its long-established rights and privileges.

#### *Wage Policy*

Labor's dissatisfaction with the wage policy of the National War Labor Board was evidenced in the heated discussion on this subject before the convention. In the words of the resolutions committee, "This convention is deeply and legitimately concerned with that Board's activities—more so than those of any of the numerous other governmental agencies which deal with or affect labor." The executive council's report outlined in some detail the history of the attempts on the part of the A. F. of L. to break the "Little Steel" formula. This was later supplemented by another written report, distributed

<sup>1</sup> Prepared in the Bureau's Labor Information Service, by Boris Stern and Eleanor Finger.



to the delegates, containing the Federation's petition on the "Little Steel" formula, and by a speech from Secretary-Treasurer George Meany, who is a member of the War Labor Board, explaining the final results of the Board's decision in the "Basic Steel" case, rendered while the convention was still in session.

The major criticism was leveled against the Board's unwillingness to recommend a modification in the "Little Steel" formula, to allow for wage increases in accordance with the rise in the cost-of-living index, as determined by the President's Cost of Living Committee. The committee on resolutions characterized such inaction as "an inexcusable dereliction of duty" and "an unwarranted breach of faith." In conclusion, the committee recommended, and the delegates adopted, a proposal to direct the president of the A. F. of L. to appoint immediately after the adjournment of the convention, a representative committee to call upon the President of the United States at the earliest possible moment and place before him the request that he issue an Executive order "which will realistically adjust the 'Little Steel' formula to the increased cost of living and permit employers and employees to effectuate the newly established policy by voluntary agreement without submission to the National War Labor Board."

Commenting on this recommendation, Secretary-Treasurer Meany stated that "no matter what the President's decision is in regard to changing the formula, we will go along," since war needs were deemed greater than any demand for wages or even justice. As a further justification for labor's demands, he cited the tremendous lag that will exist between full employment and purchasing power if the present wage structure is carried into the post-war period, a lag which he said can be overcome only by increasing the hourly wage rates now and not at the conclusion of the war with Germany, when unemployment will already be a reality. President Green in his opening address stressed increased labor productivity as another justification for higher wages now.

### *Post-War Program*

*Domestic plans.*—Recognizing the importance of full post-war employment to organized labor, the convention voted to reorganize the Post-War Planning Committee of the A. F. of L. into a planning and policy-making employment committee. It was charged with the responsibility of keeping fully informed on employment trends by industries, regions, and areas, and of consulting with employers, representatives of unions, Government agencies, and private organizations "for the advancement and maintenance of employment, for the maintenance of consumers' purchasing power at levels that will maintain high levels of employment, and for the maintenance of industrial conditions that assure personal freedom and justice to individual workers and free enterprise for employers."

A further resolution instructed the executive council to cooperate with national and international unions, State, and central A. F. of L. bodies in formulating plans to meet these post-war problems. The A. F. of L. will continue to seek through remedial legislation an improved reconversion program, including labor representation on administrative agencies specifically created to handle reconversion.

To ease the transition of workers from war to peacetime jobs, the delegates favored compensation for dislocated workers until they have resettled and resumed a peacetime vocation, and a shortening of the hours of employment to 30 per week in order to spread work and relieve tension. To sustain individual and national purchasing power, the loss of income owing to a shorter workweek should be compensated by increases in the hourly wage rates.

*Labor and the veteran.*—With a million and a half A. F. of L. members in the armed services, the convention deliberated at great length on measures to ensure returning veterans social and economic security, and to develop the fullest cooperation between labor and veterans.

Among the more important resolutions adopted on this subject was one urging the Veterans Administration to include on its staff persons familiar with the problems of labor and to establish advisory committees of management and labor to assist in its vocational education and rehabilitation program. The convention further recommended that the president of the A. F. of L. appoint a special committee on veterans' affairs to consult with the chief of the Veterans Administration from time to time regarding veterans' problems.

The officers of the Federation were also asked to confer with representatives of industry and veterans' organizations "at the earliest opportunity in an effort to bring about agreement on essential objectives and the steps necessary to carry them out." In greater detail, representatives of a number of A. F. of L. international unions reported from the convention floor on specific measures already undertaken by their respective unions on behalf of the servicemen. These included (a) exemption of A. F. of L. members in the armed forces from paying dues, (b) payment of full death benefits in case of union members killed while in the armed services, (c) the sending of shop letters, regular union publications, gifts, etc., to union members in the service, (d) admission of qualified and honorably discharged servicemen into membership without payment of initiation fees, (e) creation of committees in local unions to assist Federal, State, and local agencies in the rehabilitation of veterans, and (f) special funds for the training of veterans.

*International program.*—In a report of the special committee on international labor relations, the results of the Dumbarton Oaks conference were analyzed. The report stressed the need for democratic representation and control in all international agencies included within a world peace organization. The International Labor Organization was considered essential in both the preparation and the effectuation of any such world program. Increased funds were asked for the ILO that it might extend and develop its work; and a further resolution recommended an extension of the tripartite system, as used in the ILO, to other agencies created to maintain peace.

### *International Conferences of Labor Organizations*

The difference of opinion that has developed between the British Trades Union Congress and the American Federation of Labor over participation in an international conference of labor organizations was brought to the fore in the speeches of the two fraternal delegates from England who urged the Federation to participate in the approaching February conference. In reply, President Green cited as reasons

for its refusal, (a) the invitation for such a conference should have come from the International Federation of Trade Unions, not from the British Trades Union Congress; (b) dual unions in the United States have been invited to participate; (c) representatives from non-bona fide trade-unions will also be present as official delegates. The A. F. of L. made it clear that it will seek its own representation at the peace table.

The convention further voted to request the I. F. T. U. to convene in the United States a conference of the free trade-unions of the world as soon as possible. Free trade-unions were defined as "independent organizations controlling their own terms and conditions of membership, deciding their own rules and discipline of membership, able to make a contract with assurance of fulfillment, \* \* \* not State controlled nor \* \* \* auxiliaries of the State, dominant party, or any employer or employer's organizations. Free trade-unions are not subject to any political party nor do they serve as party tools. Power of deciding policies and the course of the organization is lodged with the union membership \* \* \*." The American Federation of Labor voted to raise \$1,000,000 in January 1945 to foster free trade-unionism in Europe, Asia, and Central and South America.

To effect a closer relationship than has existed heretofore among the trade-union movements of the Western Hemisphere, the executive council was authorized to call a conference of Pan American trade-unions in order to develop a program of joint interests and mutual responsibilities. As one concrete suggestion to increase good will among these unions, the A. F. of L. proposed the practice of exchanging apprentices between countries to further the use of new machines and techniques.

### *Labor Unity*

Recognizing the severe strain that will be placed on organized labor in the post-war period, A. F. of L. leaders and delegates stressed more urgently than in the past the need for a unified labor movement. President Green told the delegates in the opening session: "If we stand as one and move as one and walk as one and think as one, when the post-war period arrives we can meet the common enemy on equal terms, but if we have conflict and war within the ranks of labor, then we must expend energy to protect ourselves when it ought to be expended to promote our common interests."

The report of the resolutions committee, which precipitated a lively debate on the floor of the convention, called for a renewal of the invitation to the United Mine Workers to reaffiliate with the A. F. of L., and for a determined effort to "explore every avenue which would lead toward unity within the American labor movement."

Two significant resolutions were passed in connection with this report. One, submitted by the International Typographical Union, called upon the A. F. of L. peace committee and executive council to prepare a statement setting forth (a) points of fundamental disagreement between the A. F. of L. and other outside unions, (b) the basis on which the Federation is ready to settle such differences, and (c) plans for convening a meeting to consider ways in which an understanding might be reached with these outside labor organizations. The second, introduced by the International Ladies' Garment Workers' Union, requested the A. F. of L. to take the initiative in meeting with representatives from the C. I. O. and U. M. W. in an effort to find a



basis of reaffiliation with the A. F. of L. and to empower the president of the American Federation of Labor to summon these committees whenever he deems it advisable. A later resolution adopted by the convention provided that the terms granted the International Typographical Union in its recent reaffiliation with the A. F. of L. (i. e. permitting this union to reacquire all its former rights) be offered as a basis of reaffiliation for any other international union which desires to rejoin the American Federation of Labor.

### *Antilabor Legislation*

The executive council report and General Counsel Padway dealt at length with the serious question of legislation directed against labor. In 1943, antilabor bills were introduced in 22 States; in 12 States they became law. In general, this legislation takes the shape of—

1. Compulsory registration of unions and officers and the requirement of a license as a condition of doing organization work or other union business.
2. Prohibition of strikes, boycotting, and picketing unless the strike has been authorized by a majority vote of the workers directly involved.
3. Giving to the State the right to fix and regulate fees, dues, assessments of labor unions, and to control the levying of fines; and likewise to regulate elections of officers, compel detailed financial accounting, etc.

The validity of many of these State laws is now being tested in the courts, but the resolutions committee was of the opinion that the situation would remain unchanged pending a decision by the United States Supreme Court on the constitutionality of the major provisions in one of these State laws.<sup>2</sup> A resolution calling upon A. F. of L. members to regard as "unfair" all products from States adopting antilabor amendments similar to those passed by referendum in Florida and Arkansas was referred to the executive council "to take effect if, and when, the time is propitious." Local unions were strongly urged to affiliate with their respective State federations in order to combat more effectively the antilabor trend. Repeal of the Smith-Connally Act<sup>3</sup> before termination of hostilities was likewise voted.

### *Racial Discrimination*

As in previous conventions, Philip Randolph, president of the Brotherhood of Sleeping Car Porters, led an attack from the floor against those forms of racial discrimination still found among some A. F. of L. international unions. He assailed the practice of establishing auxiliary unions for colored members as "a form of trade-union imperialism, whereby workers, because of race and color, sustain the status of subjects and \* \* \* are oppressed and exploited because of the fact." He contended further that the presence of auxiliary unions constitutes a form of dual unionism, contrary to the principles of the American Federation of Labor.

President Green, in reply, pointed out that the A. F. of L. as such has never supported the formation of auxiliary unions, and that the adoption or elimination of such practices lie entirely within the auton-

<sup>2</sup> For recent decision of the Supreme Court as to law of Texas, see p. 332 of this issue. For summary of laws see Monthly Labor Review, May 1943 (p. 942).

<sup>3</sup> For summary, see Monthly Labor Review, August 1943 (p. 305).

omous right of the individual international unions. The A. F. of L. policy on the racial issue, declared at the 1943 convention, was reaffirmed by the delegates at the conclusion of the debate.<sup>4</sup>

The delegates also passed resolutions approving Federal legislation to outlaw lynching, white primaries, poll taxes, and supporting in principle the establishment of a permanent Fair Employment Practice Committee.

### *Miscellaneous Resolutions*

With regard to Federal legislation, the convention recommended that the Fair Labor Standards Act be amended to eliminate the exemption of the canning industry from the provision of the act. Two changes in the National Labor Relations Act, proposed by the delegates, would provide that "craft workers shall never be denied the right to vote as a craft or class in the selection of a bargaining representative," and that direct court review be granted in representation cases. The requirements for an adequate social security bill were outlined, and the A. F. of L. committee on social security, established in 1943, was requested to work with President Green in the preparation of legislation incorporating these objectives. Organizations affiliated with the Federation were asked to appoint social-security committees to assist in the promotion of the program.

Other important decisions by the convention called for postponing consideration of post-war compulsory military training until after the peace treaty and for a thorough study to be made of this proposal by representative groups. To encourage the growth of consumers' cooperatives, the delegates recommended the establishment of a department of consumers' cooperation within the Federation, to coordinate and assist the activities of the central bodies and local unions interested in learning how to organize study and buying clubs and how to manage consumers' cooperatives.

### *A. F. of L. Membership*

An increase of almost 243,000 over the 1943 total brought the A. F. of L. membership to about 6,807,000. This figure does not include the million and a half members now serving in the armed forces.

Two new international unions, the International Chemical Workers Union and the Office Employees International Union, were chartered during the year. The International Typographical Union reaffiliated with the Federation after a 4-year separation.

Increased organizational activity in the coming year is indicated in the resolution passed by the convention, recommending that "the organizational director in each State or region \* \* \* call a State-wide conference each month of all national and international representatives, general organizers, and officers, and representatives of State Federations of Labor, and \* \* \* that each central body call a similar meeting once each month of all general organizers, national and international representatives, and local business agents." The purpose of such meetings would be to plan and coordinate organizational drives within the area. It was further recommended that various unions, having jurisdiction over crafts in one plant or industry, coop-

<sup>4</sup> See report of 1943 A. F. of L. Convention in *Monthly Labor Review*, December 1943 (p. 1180).

erate in organizing such a plant or industry and in negotiating a master agreement covering wages and working conditions affecting all workers and unions concerned.

### *Officers, and 1945 Convention City*

The election of officers returned President Green to office for the 21st time, and Secretary-Treasurer Meany for his 5th term. All 13 vice presidents were reelected unanimously.

Chicago was selected as the convention city for 1945.



## 1944 Convention of Congress of Industrial Organizations<sup>1</sup>

THE seventh annual convention of the Congress of Industrial Organizations, which was held in Chicago November 20-25, 1944, had before it a comprehensive program for the post-war period, covering labor, social, and economic problems, and for labor's participation in political action. Other significant issues before the convention related to the no-strike pledge, the national wage policy, discrimination against Negroes and other minorities, problems of veterans, and international labor cooperation.

The keynote to the immediate and post-war social and economic objectives of the Congress of Industrial Organizations was sounded by the Most Reverend Bishop Bernard J. Sheil, of Chicago, who in his invocation at the opening of the convention stated among other things—

As a recognized and permanent force in American life, labor unions have a unique opportunity and a unique obligation in the peace that is to come. The unions can strike the most telling blows against a potent source of unrest and rebellion in the American Nation: discrimination against Negroes. By admitting Negroes into membership on a basis of equality, the unions can destroy economic injustice and beat down barriers of ill-will and stupid opposition. Similarly, the labor unions can help eradicate the cancer of anti-Semitism. \* \* \*

Another answer that labor can give to the persistent questioning of the common man is the guaranteed annual wage. From every standpoint this seems to me a fundamental requirement for full employment, for economic stability, for peace, and finally for dignified human living. \* \* \*

\* \* \* Labor can and must do still another thing: It must work to bring about the day when labor and industry will sit down at the same conference table and together work out their common problems. In other words, collective bargaining must be extended to union-management cooperation. The union then becomes much more than an agency to settle grievances; it becomes the workers' means of participating in management. Labor and industry, freely and responsibly working together, will mutually benefit.

In responding to Bishop Sheil's invocation, President Murray referred to it as a most effective summary of the work which the Congress of Industrial Organizations has been trying to do since the fall of 1935, and suggested that the speech be printed in pamphlet form for wide distribution.

Assembled within less than 2 weeks after the Presidential election on November 7, in which the Congress of Industrial Organizations through its Political Action Committee (P. A. C.) played a prominent

<sup>1</sup> Prepared in the Bureau's Labor Information Service, by Boris Stern.



role, the convention devoted much of its time and deliberations to the question of labor's future political activities. Nearly all the principal guest speakers, including Mrs. Roosevelt, Vice President Henry Wallace, and Secretary of the Interior Harold Ickes, discussed the accomplishments of the Political Action Committee, and urged its continuation. The climax, however, came on the third day of the convention, when Sidney Hillman, director of the Political Action Committee and president of the Amalgamated Clothing Workers, reported to the delegates in detail the background and the nature of the work of P. A. C.-C. I. O. By unanimous vote the convention then adopted a resolution to continue the Political Action Committee in its present form and charged it with the task of directing the work of political education and political action of the C. I. O.

Specifically, the political objectives of the C. I. O., as outlined in the resolution, are as follows:

To maintain and stimulate the activities of existing political action committees established in State and city industrial union councils and local unions, and to establish such bodies where they are not now organized.

To maintain, extend, and stimulate the activity of community organizations formed under the leadership or with the participation of the C. I. O.

To promote united action in the political field in collaboration with other organizations of labor, progressive groups, and forward-looking leaders of the two major political parties.

To carry on the work of political education through the publication and distribution of pamphlets, servicing the labor press, the use of the radio, and all other appropriate means.

To prepare the ground work for effective participation in important local elections of 1945 and in local, State, and national elections in 1946.

### Resolutions

*No-strike pledge.*—The C. I. O. reaffirmed its pledge that "until we have accomplished a complete and absolute destruction of the German and Japanese military forces there can be no question of our basic responsibility to the Nation to continue intact our no-strike pledge."

*"Little Steel" formula.*—The position of the C. I. O. regarding the "Little Steel" formula was expressed in two resolutions. One of these expressed the dissatisfaction of the Congress of Industrial Organizations with the methods and policies pursued by the War Labor Board in connection with the formula, and condemned the action of the Board in refusing to submit to the President of the United States a recommendation calling for the revision of the "Little Steel" formula to bring wages in line with the sharp rise in the cost of living. It branded the wage-bracket system as destructive of wage standards established through years of collective bargaining, and called attention to the failure of the Board to establish a floor for wages to meet what was termed substandard living conditions, thus causing hardships to a large majority of low-paid wage earners and white-collar workers who are least able to bear the effects of the increased cost of living.

The other resolution called for the continuation of the War Labor Board, at the same time outlining a "more realistic" policy to be pursued by that agency in dealing with labor disputes. It called upon the Board to streamline its operations with a view to obtaining speedy compliance with its directives and thus prevent work stoppages which seriously hamper the war effort. It also called upon the Board to assume full responsibility in determining all issues that may arise

between labor and management, including such matters as guaranteed employment, group insurance, sick leave, dismissal pay, etc.

*Discrimination against minority groups.*—The C. I. O. again reaffirmed its opposition to discrimination against the Negro or any other minority group. It urged all affiliated unions to incorporate into their collective-bargaining agreements a provision that no person seeking employment shall be discriminated against because of race, creed, color, or place of origin. It commended the work of the President's Committee on Fair Employment Practice, and called upon the Congress of the United States to enact legislation making that Committee a permanent institution, with authority to enforce its decisions.

*Veterans.*—The convention stressed the need for cooperation and unity between the men on the fighting front and the men and women engaged on the production lines, not only while the war lasts but also in the post-war reconversion period. To achieve such cooperation, the convention recommended that affiliated unions—

1. Provide in their collective-bargaining agreements that veterans who are employed for the first time shall be accorded cumulative seniority rights for the time spent in service since September 1940, the date of the passage of the Selective Service Act.

2. Continue the present practice of waiving initiation fees for veterans who desire to become members.

3. Protect the accrued seniority of veterans who upon their discharge from the service seek to return to their jobs.

4. Establish committees on a local and national basis to aid veterans in finding jobs and obtaining the benefits to which they are entitled under the law and in securing all needed aid in retraining and rehabilitation for civilian life.

5. Continue to work with the established veterans' organizations in urging liberal interpretation of existing laws and enactment of further legislation for the benefit of veterans.

*Post-war program.*—In this resolution, entitled "Sixty Million Jobs and Prosperity for All," the C. I. O. called for the realization of the President's "Economic Bill of Rights," which, among other things, includes job security, adequate wages, expanded business opportunities, decent housing, good education, adequate medical care, and protection from the fear of old age, sickness, accidents, and unemployment. The convention went on record as favoring labor's cooperation with industrialists, farmers, other sections of the population, and the Government, to make this program a reality. The resolution stated in part:

If industry will respect the rights of organized labor, will bargain with the unions in good faith, and will recognize that post-war prosperity must be built upon increasing purchasing power and increased production, our unions will help to preserve industrial peace and will cooperate to the limit to increase the production of goods and services upon which our common prosperity depends. The common interests of labor, progressive industrialists, farmers, and veterans demand a unity of program and action on the part of these groups. There can and must be a common solution for our mutual problems.

Specifically, the C. I. O. reemployment plan prepared by President Murray and adopted by the convention called for the formation of a national production council of representatives of industry, labor, and agriculture to cooperate with the Office of War Mobilization and Reconversion in the entire program of demobilization and recon-

version. It called for the disposal of surplus property with a view to maintaining full production and full employment, and with adequate safeguards to assure small businesses a full opportunity to purchase their share and thus maintain healthy business competition.

In the field of wages, the C. I. O. post-war plan urged a high wage level, to provide the people of the country with purchasing power to buy the goods they produce. To this end, the following action on wages and collective bargaining was recommended:

There must be immediate revision of the "Little Steel" formula to compensate labor for the loss incurred during the rise in the cost of living. In due time, labor must, in addition, share more fully in the earnings of industry through further wage increases.

There must be prompt and generous increases in wage rates to protect workers against reconversion unemployment.

There must be no reduction in take-home pay as overtime is eliminated in war plants.

Annual-wage guaranties must be included hereafter in all labor contracts.

Dismissal pay, sick-leave pay, paid vacations and holidays, paid insurance, veteran's funds, and the elimination of geographical differentials must become elements of collective-bargaining contracts in the future.

There must be an unqualified acceptance of the principles of collective bargaining. There must be no "blitzkreig" against organized labor in America after this war. The resources and energies of the Nation must be devoted to the winning of good times, and must not be squandered in industrial strife. The principles of union recognition, collective bargaining, and prosperity wages must remain basic propositions in our economic life.

*International labor unity.*—The convention endorsed and approved President Murray's action in accepting the invitation to attend a world trade-union conference called by the British Trades Union Congress, which would include representation from all United Nations, including the Soviet Union. The convention also authorized the C. I. O. delegates to this conference to strive for the formation of "a new single and powerful international labor body, including all the unions of free countries on a basis of equality, excluding none, and relegating none to a secondary-place. \* \* \*"

In speaking on this resolution, President Murray described in greater detail the work and policy which he has followed in the formation of such a conference, and concluded: "It shall be my purpose and it shall be the purpose of your special committee, scheduled to go to London next week for the purpose of participating in preparatory meetings, to carry on the fight for C. I. O. representation in a new world labor movement."

### *Officers and 1945 Conventions*

President Philip Murray, Secretary-Treasurer James B. Carey, and the nine vice presidents were unanimously returned to their respective offices. One representative nominated by each of the 40 international unions and organizing committees was also elected to serve with the officers on the executive board of the Congress of Industrial Organizations.

The time and place of the 1945 convention will be determined by the executive board.



## *Industrial Disputes*

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### Strikes and Lockouts in 1944 (Preliminary Estimates)

PRELIMINARY estimates for the year 1944 indicate approximately 5,000 strikes and lockouts, with 2,100,000 workers involved, and 8,500,000 man-days of idleness. The idleness in 1944 was about two-thirds as great as in 1943, although the number of stoppages and the number of workers involved were greater. Idleness during strikes and lockouts in 1944 amounted to a tenth of 1 percent of the available working time, as compared with 0.15 percent in 1943, 0.05 percent in 1942, and 0.32 percent in 1941.

As in the past, the figures in this report cover work stoppages owing to disputes connected with the terms and conditions of employment, regardless of whether workers or employers initiated them. The title "Strikes and Lockouts" was used in similar reports prior to 1936, although more recently the title was shortened to "Strikes." The figures include all known work stoppages resulting from industrial disputes which involved six or more workers and lasted as long as a full day or shift. As in former reports, the figures include all workers in any plant who were made idle because of a strike or lockout in that plant, regardless of whether or not they were all directly involved in the dispute.

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### Strikes and Lockouts in December 1944

PRELIMINARY estimates of the Bureau of Labor Statistics indicate 280 strikes and lockouts beginning in December 1944, with 85,000 workers involved, and 380,000 man-days of idleness, which is equivalent to a twentieth of 1 percent of the available working time.

The largest strike in December involved about 7,500 employees of Montgomery Ward and Co. in the Detroit area, Kansas City, and Chicago. It was in protest against the company's noncompliance with decisions of the National War Labor Board relative to the payment of increased wages and maintenance-of-membership privileges for the union involved—United Retail Wholesale and Department Store Employees of America, C. I. O. The strike began in the Detroit area about December 9 and spread to the other cities after Christmas. It was terminated when properties of the company in Chicago, Detroit, St. Paul, Denver, Jamaica (N. Y.), Portland (Oreg.), and San Rafael (Calif.) were taken over by the War Department under Presidential order on December 28. Properties in Kansas City were not taken over, as National War Labor Board decisions relating to operations there were in process of appeal and there had been no actual non-compliance.

*Strikes and Lockouts in December 1944, With Comparable Figures for Earlier Periods*

Month	Strikes and lockouts beginning in month		Man-days idle in month (all strikes and lockouts)	
	Number	Workers involved	Number	Percent of available working time
December 1944 <sup>1</sup> .....	280	85,000	380,000	0.05
November 1944 <sup>1</sup> .....	375	200,000	710,000	.10
December 1943.....	355	263,240	787,080	.11
December 1942.....	147	59,269	192,502	.03
December 1941.....	143	29,555	476,471	.07
December 1940.....	147	42,615	458,314	.08
December 1939.....	106	12,350	384,261	.07

<sup>1</sup> Preliminary estimates.

### Activities of U. S. Conciliation Service, November 1944

DURING the month of November 1944, the U. S. Conciliation Service disposed of 2,017 situations, as compared with 2,325 situations in October. During November of the preceding year, 2,108 situations were closed.

Of the 263 strikes and lockouts handled, 228 were settled successfully; 35 cases in which strikes occurred during negotiations, were certified to the National War Labor Board, but in 20 cases a Commissioner of Conciliation had affected a return-to-work agreement prior to certification of the case. The records indicate that 133 situations were threatened strikes and 1,452 were controversies in which the good offices of the Service were requested by the employer, employees, or other interested parties. Altogether, 499 disputes were certified during the month to the War Labor Board and in one case an agency other than the War Labor Board assumed jurisdiction. The remaining 169 situations included 61 arbitrations, 13 technical services, 25 investigations, and 70 requests for information, consultations and special services.

#### Cases Closed by U. S. Conciliation Service, November 1944, by Type of Situation and Method of Handling

Method of handling	Total	Strikes and lockouts	Threatened strikes	Controversies	Other situations
All situations.....	2,017	263	133	1,452	169
Settled by conciliation.....	1,348	228	116	1,004	.....
Certified to National War Labor Board <sup>1</sup> .....	499	35	17	447	.....
Referred to State and Local agencies.....	1	.....	.....	1	.....
Decisions rendered in arbitration.....	61	.....	.....	.....	61
Technical services completed.....	13	.....	.....	.....	13
Investigations, special services.....	95	.....	.....	.....	95

<sup>1</sup> Of these, 20 were settled prior to referral.

## *Labor Laws and Decisions*

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### **Eleventh National Conference on Labor Legislation**

DELEGATES from 36 States, Alaska, and the District of Columbia met in Washington on December 12-14, 1944, to consider labor problems of particular importance to the States and to recommend State legislation which would assist in orderly reconversion to peacetime production after the war. The Eleventh National Conference on Labor Legislation met at the call of the Secretary of Labor and was composed of Governors' representatives from State labor departments and from organized labor.

The delegates to the Conference unanimously agreed that the first duty of labor leaders and State labor officials is to see that the war industries are maintained at full production until the war is won. However, in view of the fact that 44 State legislatures meet in 1945, and most of them do not meet again for 2 years, the need to plan now for post-war problems was emphasized. Therefore, the Conference urged the restoration, at the earliest possible time, of all protective laws and regulations relaxed during the war and recommended immediate and extensive liberalization of social-security legislation. The Conference also recommended the adoption of stronger State regulations to restrict child labor, laws to require employers to provide safe and healthful working conditions, and the consolidation of labor functions in Federal and State labor departments.

#### *Recommendations of Committees*

Committees composed of representatives of labor groups and State labor officials were appointed at the first meeting of the Conference to consider the following subjects: (1) State labor departments; (2) migratory labor; (3) safety and health and workmen's compensation; (4) wages, hours, and industrial homework; (5) industrial relations; and (6) employment of children and of youth. Reports of these committees were later adopted by the Conference. Their recommendations were as follows:

*State labor departments.*—The committee on the strengthening of State labor departments stressed the need for adequate appropriations, and particularly urged that sufficient funds be appropriated to permit the employment of adequate inspection forces by State labor departments. On the assumption that labor departments are created to promote and protect the interests and welfare of workers, the committee recommended a full-fledged single department of labor at both the State and Federal levels, charged with responsibility for the administration of all laws relating to labor, including industrial safety, industrial health, and industrial hygiene. The report also recommended continued and improved cooperation between the



Federal and State labor departments in the administration of their laws relating to hours, wages, child labor, industrial homework, and safety and health.

*Migratory labor.*—The committee recommended that State labor commissioners be authorized by law to license labor camps and to establish standards of housing, health, and welfare for these camps. It further recommended that State and Federal child labor laws should protect children in agriculture, and that provision should be made for their schooling. In order to give adequate protection to migratory workers, it was urged that both Federal and State labor laws be made applicable to all workers.

*Safety and health and workmen's compensation.*—This committee urged a reexamination of workmen's compensation laws in all of the States with reference to benefits and administrative practices and procedure. Its report pointed out that the majority of the States have failed to increase weekly compensation rates to correspond with increased wages and living costs. In reexamining these laws, special attention should be given to (1) present earnings as compared with workmen's compensation benefits, (2) insurance premiums, (3) the lag between the date of injury and first compensation payment, (4) regulation of legal fees, (5) procedure, and (6) the effect of the elective type of law in respect to depriving workers of the benefits of this legislation.

The report also urged that second-injury funds be established by all the States to encourage and promote the employment of physically handicapped persons, including civilians and war veterans. It was suggested that these funds should be financed by assessments in non-dependent death cases. Amendment of State workmen's compensation laws, to cover all occupational diseases, was also recommended.

With respect to safety and health legislation, the committee recommended a basic labor law for each State which would place upon all employers the obligation to provide safe and healthful working conditions. The labor department should be authorized to develop codes or detailed regulations covering minimum requirements for safeguarding workers exposed to specific accident or health hazards. The report urged that the U. S. Department of Labor should be provided with more adequate facilities for direct advisory and consultative service to State labor departments. It was also recommended that the Federal Government should make available grants-in-aid to the States for the purpose of strengthening State labor departments.

*Wages, hours, and homework.*—The committee on State regulation of wages, hours, and homework recommended that all States adopt minimum-wage legislation for all workers and raise the minimum to not less than 65 cents per hour. In addition, it recommended that legislation be enacted to provide for penalty overtime for hours worked beyond 8 per day and 40 per week. The committee also urged the enactment of "equal pay" laws by all States, so that the same wages would be paid for the same work, regardless of the sex of the worker.

With respect to industrial homework, the committee recommended that States in which homework is not yet extensive enact legislation at once to prohibit it. Other States were urged to provide for gradual abolition of homework.

*Industrial relations.*—This committee recommended that all Federal labor functions, with the exception of those arising under the Railway Labor Act, be consolidated under the U. S. Department of Labor.

Its report condemned State antilabor laws which provide for the incorporation of unions, State control of the internal affairs of labor organizations, the outlawing of the closed shop, and other restrictions on union activities. Other recommendations made by the committee included (1) the adoption by all States of "Little Wagner Acts" and the extension of the National Labor Relations Act to cover agricultural workers; (2) cooperation between labor and veterans' organizations in the development of programs for the reemployment of veterans; (3) the permitting of wage increases not involving price increases without the approval of the National War Labor Board; and (4) the adoption of permanent Federal and State legislation embodying the principle of the Fair Employment Practice Committee.

*Child labor and employment of youth.*—This committee recommended a 16-year minimum age for all employment during school hours and for employment in manufacturing, mechanical, and processing establishments at any time. The committee also urged the establishment of a maximum 8-hour day, 40-hour week, and 6-day week for all minors under 18. Further recommendations were made regarding night work, migratory child labor, school-work programs, and community programs and services.

### *Resolutions Adopted by the Conference*

In addition to adopting the reports submitted by the committees, several resolutions were adopted by the Conference. The principle of an annual wage was endorsed, and the Conference recommended the extension of social-security protection to millions of workers not now covered. It proposed that sickness and hospital benefits be provided, and that the State unemployment-compensation laws be liberalized.

The Conference expressed opposition to the proposed "equal rights" amendment to the Constitution. Such an amendment, it was stated, would destroy existing laws which protect women workers. In reiterating its recommendation that all labor functions be established in the State and Federal labor departments, the Conference pointed out that the scattering of these matters made difficult the close Federal-State cooperation needed.



## **Recent Decisions of Interest to Labor <sup>1</sup>**

### *Decisions on State Laws Regulating Labor Unions*

**UNCONSTITUTIONAL aspect of Texas union-regulation law.**—The Supreme Court of the United States in *Thomas v. Collins* <sup>2</sup> held unconstitutional section 5 of the Texas act regulating labor unions as applied in that case, on the ground that the particular application imposed an improper restraint upon the right of free speech and free assembly.

<sup>1</sup> Prepared in the Office of the Solicitor, Department of Labor. The cases covered in this article represent a selection of the significant decisions believed to be of special interest. No attempt has been made to reflect all recent judicial and administrative developments in the field of labor law nor to indicate the effect of particular decisions in jurisdictions in which contrary results may be reached, based upon local statutory provisions, the existence of local precedents, or a different approach by the courts to the issue presented.

<sup>2</sup> — U. S. — (Jan. 8, 1945).

The statute, in section 5, required labor-union organizers operating in Texas to file a request for, or apply to the secretary of state for, an organizer's card before soliciting members for the union. It provided that the secretary issue such card on filing of the application, and that the card be carried by the organizer in soliciting members, and be shown on request to anyone so solicited. It barred aliens and convicts from acting as labor organizers and defined that phrase as "any person who for a pecuniary or financial consideration solicits memberships in or members for a labor union." The secretary of state had issued interpretations indicating that solicitation of membership, as an incident to other duties for which a salary is paid, will be considered solicitation for a pecuniary return; further, that applicants complying "in good faith" with the provisions of the act must receive cards. The act made violations a misdemeanor and provided that violation might be enjoined.

The "organizer" involved in the case, R. J. Thomas, was a salaried president of the United Automobile, Aircraft, and Agricultural Implement Workers of America and a vice president of the Congress of Industrial Organizations. His duties included soliciting members in general or in particular for his union and its affiliates. An oil-workers' union in Texas, a C. I. O. affiliate, campaigning to organize employees in a plant at which the National Labor Relations Board had ordered an election, arranged a mass meeting and advertised him as a speaker. Before the meeting he was served with a restraining order, obtained in a State court by the Attorney General of Texas, which enjoined him from soliciting members for any C. I. O. affiliate in Texas without obtaining an organizer's card. At the meeting, Mr. Thomas read a speech in which, as vice president of the C. I. O., he urged nonmembers in the audience to join the union and further issued a direct oral invitation to a named individual to join the union.

Mr. Thomas was cited, found guilty, and sentenced for contempt of court. The order was sustained by the supreme court of the State, which denied that an issue of free speech was involved and justified the law as being aimed at saving workers from imposture by alleged organizers and as an identification of a business agent. In the State court proceedings, no distinction was drawn between the general and the specific solicitation of membership, either in finding Thomas guilty or in punishing him for contempt.

The Supreme Court of the United States reversed the judgment. The opinion said that in these conflicts between the freedom of the individual and the power of the State, it is the character of the individual's right and not of the limitation which determines the issue; or, put differently, the decision depends on whether the State's control may be founded on the test of a "rational basis" for the legislation or requires a more potent foundation because it infringes a constitutional liberty. Freedom of speech and assembly may be curtailed only in case of "clear and present danger." The association of freedom of speech and the press with the right of assembly and of petition in the Constitution was because these rights, though not identical, are inseparable. Freedom of mind is protected as well as freedom of conscience, and the right to constitutional protection does not depend on the field of human interests which is involved. Applying this generalization, the Court said that the fact that labor unions are engaged in business activities or that an organizer is paid does not



bar him from constitutional protection. On the other hand, no immunity from ordinary controls exists for labor unions as such. The economic functions of labor unions cannot be ignored and the case treated merely as if it were any citizen's speech on any subject, in determining the extent of the right.

If this case is to be decided by the community's evaluation of clashing interests, including consideration of how one interest will be affected by the restriction and the other by the lack of restriction, though the legislature initially makes this judgment, the Supreme Court under our constitutional tradition must independently weigh the values. Under the established "clear and present danger" test, the situation involved in the Thomas case does not justify the infringement of freedom of speech and of freedom of assembly (violated because of the interference with public discussion) which here occurred.

The occasion for the speech (a meeting which was part of collective-bargaining activity authorized by Federal law) was clearly protected; the speech was an essential part of the occasion, if the occasion was to mean anything; the invitations to join the union, particular and general, were inseparable incidents of the speech and of the occasion. It was, therefore, a lawful assembly for a lawful purpose and entitled to full constitutional protection.

Counsel for Texas argued that Mr. Thomas could have made a speech praising labor unions without soliciting members. The Supreme Court could see no satisfactory distinction between general praise of labor unions and solicitation to join, which, under the circumstances, would be implied, if not spoken. Viewed as restraint, the effect of the injunction and the threat of criminal prosecution would be to inhibit indirect as well as direct invitation or language since the most general praise of unions might be understood differently by different hearers, and as solicitation by some. Therefore, the prohibition interferes not only with solicitation but also with speech. Free speech is protected not merely to safeguard the sharing of knowledge but also to shelter persuasion to act. Espousal of the cause of labor is entitled to no higher, but to the same, constitutional protection as espousal of any other lawful cause.

Counsel for Texas further argued that this was a mere requirement of pre-identification and that, with no discretion lodged in the secretary of state to refuse to issue the card, such requirement is lawful under earlier Supreme Court decisions. The Court refused to make the subordinate decisions involved in applying this theory, because the court below had not distinguished in the contempt proceedings between the general speech and the individual invitation to join. Whether that particular invitation was solicitation was not decided; how much, if any, action is needed before words of invitation amount to solicitation was undecided. However, the Court said that, in connection with lawful public assemblies, both the right of free speech and the right of assembly would be violated by a requirement of registration or identification as a condition to be met before making a public speech to enlist support for a lawful movement. Where speaking is coupled with the collection of funds or securing subscriptions, however, reasonable registration or identification requirements may be imposed by a State, *if the restriction does not intrude on the rights of free speech and assembly.*

While the decision was confined to the application of section 5 to the facts of this case, the opinion stated that the majority of the Court does not believe that section 5 or its application is in conflict with the National Labor Relations Act.

*Florida labor-union law constitutional in part.*—The Supreme Court of Florida decided on the constitutionality of its labor-union law of 1943 in *Hill v. Watson*.<sup>3</sup> Section 4, which dealt with the licensing of business agents of labor unions, was validated by striking out as unconstitutional the clause which allows the licensing board to withhold a permit unless "of the opinion that the public interest requires that a license or permit should be issued to such applicant." Other provisions of section 4—which created a license board, required payment of \$1 with the application, and prescribed requirements of 10 years' citizenship, no conviction of felony, good moral character, and authorization by labor unions, for licensing a business agent—were held constitutional. The ground on which they were upheld was the similarity to provisions licensing lawyers, doctors, barbers, insurance agents, and others engaged in professions and businesses of a gainful character. Such regulation has been upheld as being in the interest of public health, morals, safety, welfare, and prosperity. The court rejected the argument that labor unions should be classed as similar to chambers of commerce, citizens' committees, law-and-order leagues, and religious associations. The distinction it drew was that the latter are largely gratuitous, are not imbued with the profit aspect, and minister to the spiritual, moral, educational, and other necessities of the community. On the other hand, the ground for legislating as to labor unions was stated to be vital public interest which exists in them.

Section 6, which requires the filing with the secretary of state, on a prescribed form (and annually), of the name and address of the labor organization and its officers and business agents, was upheld on the authority of decisions supporting similar legislation in Kansas, Texas, Wisconsin, Idaho, South Dakota, and Alabama. As to the objections to the license fee as a restraint on civil liberties, i. e., the right of workers to assemble, to circulate information, to form and join unions and solicit others to do the same, the court disposed of the argument by considering the fee as a charge for the actual cost of the service.

Regarding the National Labor Relations Act, the court said that it does not preempt the field of legislation and that the State power is supreme unless it places an undue burden on interstate commerce. The exclusion of railway employees is a reasonable classification usual in such acts.

*Parts of Idaho union-control act valid.*—In the lower court of Idaho, a declaratory judgment was secured in *American Federation of Labor v. Miller*.<sup>4</sup> The decision showed which parts of the criminal statute of 1943<sup>5</sup> dealing with labor unions were valid, and which unconstitutional. Specifically, the requirement that union officials file annual financial statements for the union is valid. It is not a prerequisite of the union's doing business and does not interfere with the constitutional rights of its members; it is not an improper classification because

<sup>3</sup> — So. (2d) — (Nov. 28, 1944).

<sup>4</sup> — Pac. (2d) — (Nov. 18, 1944).

<sup>5</sup> Session Laws 1943, ch. 76. (See Monthly Labor Review, May 1943, p. 942, for summary of law.)

it does not apply equally to employer and trade associations, since the legislature may select the worst concentration of a condition for attack. Emphasis was also laid upon the treatment of unions as a separate class for protection, as proving that they may be similarly treated for regulation. The required financial disclosure is not an unlawful search or seizure. This section is not a direct burden on interstate commerce because communication between union locals or joint action by them is not interstate commerce as contemplated by the Federal Constitution. There is no conflict with the National Labor Relations Act because Congress did not attempt to occupy this portion of the field of regulation.

Other clauses prohibited entry of a union officer or agent on any ranch or farm, without the consent of the owner, to collect dues or solicit membership, and forbade picketing upon any ranch or farm. The constitutional right to acquire, possess, and protect property, said the court, is as much entitled to protection as any other constitutional right. The provisions described are an expansion of statutory grounds of trespass. The right to strike and to picket peacefully are not absolute as to place and do not include the right to enter private property without the owner's consent.

Another clause prohibited boycott or interference with movement to market or sale of agricultural products by nonunion labor. This was held unconstitutional because it was so broad that it would penalize peaceful picketing on a public highway in or around any business handling farm products.

### *Decisions on Fair Labor Standards Act*

*Child-labor clause inapplicable to Western Union.*—The Supreme Court of the United States, in *Western Union Telegraph Co. v. Lenroot*<sup>6</sup> interpreted the child-labor provisions<sup>7</sup> of the Federal Wage and Hour Law and found them inapplicable to Western Union. In the absence of evidence of legislative intent, the Court said, it must be determined from the statutory language and definitions, whether Western Union "ships" in commerce "goods" which it "produced" within the meaning of section 12 (a). Telegrams are "goods," said the Court, but Western Union is not a "producer" nor does it "ship" within the meaning of the act. Although recognizing that the statutory definition of "produced" includes "handled" and "worked on," the Court concluded that these terms, in ordinary speech, related to "every kind of incidental operation preparatory to putting goods into the stream of commerce," such as packaging products or bottling liquids, or labelling, but do not relate to handling which is simply incidental to the transmission or transportation of goods. The ordinary meaning of the word "ship," said the Court, does not include shipping electrical impulses. Another consideration which influenced the Court's decision was its view that it was unlikely that Congress intended to permit our only Nation-wide telegraph system to be restrained from handling messages for 30 days. Had Congress contemplated application of the act to Western Union, said the Court, it would have provided enforcement measures more suitable than to forbid the sending of telegrams. The dissenting opinion took the view that

<sup>6</sup> —U. S. —(Jan. 8, 1945).

<sup>7</sup> 20 U. S. C., sec. 212 (a).



linguistic purism should not be used to carve a judicial exception in the act, that the importance of an industry is no ground for special treatment, and that an unsatisfactory remedy should be corrected by Congress and not by an interpretation wiping out a field of legal control.

*Waiting time as working time under Wage and Hour Law.*—Privately employed firemen worked 24 hours on and 24 hours off. For the first 9 they repaired and inspected apparatus; for the rest of the 24 hours, they stayed in the fire hall on call and amused themselves with equipment supplied for their entertainment by the employer. They could not leave except, by permission of the watchman, for an evening meal, and they were on call throughout the whole 24 hours. The Supreme Court of the United States in *Armour & Co., v. Wantock*<sup>8</sup> affirmed the lower court in deciding that these firemen were covered by the Fair Labor Standards Act and that all of the 24 hours on duty except eating and sleeping time constituted "hours worked" under the act. "Necessary" to production does not mean merely that which is "indispensable," but includes occupations which contribute to economy or continuity as well as those which contribute to volume of production. What is necessary is tested by production as carried on by the individual employer. Further, the Supreme Court pointed out that whether time spent is for the benefit of the employer or the employee is a question of the circumstances of each case, but that being on call and ready to serve, or even refraining from activity, may be work for which a man is employed; and that this conclusion is not affected by an agreement, express or implied, that the employee may amuse himself during working time without departure from duty.

### *Decisions on Closed Unions and Discrimination by Unions*

*"Closed shop means no closed union."*—In the West Coast shipping industry, in which the Shipbuilders' Union has a master agreement with almost all shipyards, the union, by reason of its labor monopoly (represented by the closed-shop agreement and other collective action), holds a position like that of a public-service business and has corresponding obligations of equal treatment to those dependent on its services. This was the reasoning of the California Supreme Court in *James v. Marinship Corp.*<sup>9</sup> in refusing, though requested by a union, to compel the employer to discharge Negroes under its closed-shop agreement. The Negroes had refused to join the union which, they proved, discriminated against them.

It was established by the Negroes that they were admitted only to auxiliaries, which were supervised by non-Negro locals; the auxiliaries were not allowed their own business agents nor permitted to control the matter of promotions; they could be dissolved by the International at any time, though union locals could not, and were subject to other discriminations. The court said that the fundamental right to work for a living is involved under such monopolistic and closed-shop conditions; therefore, a union, as to its membership, is not as free from restraint as a golf club, for example. No decision of the California or the United States Supreme Court supports the proposition that a closed union, coupled with a closed shop, is a legitimate objective of

<sup>8</sup> 65 Sup. Ct. 165 (Dec. 4, 1944).

<sup>9</sup> —*Pac.*(2d)—(Dec. — 1944).

organized labor, entitled to judicial recognition and support. A reasonable interpretation of the National Labor Relations Act and its underlying policy requires that unions chosen to represent the employees must be open to all who wish to join. Considering the statutory designation of the majority choice as the exclusive bargaining agent of all the employees, it is difficult to see how a union can fairly represent all the employees of a bargaining unit unless it is willing to admit all to membership, giving them an opportunity to vote for union leaders and to participate in setting union policies.

### *Labor Relations and Industrial Disputes*

*Employer unfair in signing closed-shop contract, knowing closed union intended.*—In the case, *Wallace Corp. v. National Labor Relations Board*,<sup>10</sup> the Supreme Court was presented with the following situation: A strike occurred during a C. I. O. attempt to organize a plant; and an "independent" union came into the field. The National Labor Relations Board approved a settlement by which the C. I. O. was to withdraw charges of unfair labor practices by the employer, a consent election was to be held, and a closed shop was to be granted to the successful union. The independent union, successful in the election, was certified. Thereafter, the employer, with knowledge that this union intended to refuse membership to employees who had belonged to the C. I. O., signed the agreement with the closed-shop clause and later, on notice from this union, discharged employees who did not become union members.

The National Labor Relations Board then held hearings on charges of unfair labor practices. Going back to the founding of the "independent," the Board determined that this union was sponsored by the company. It decided that the employer knew the closed-shop clause was intended to eliminate from employment the former C. I. O. members, and found that that very contract had a provision which would wipe out the closed-shop clause if the contracting union became an "affiliated union." On these findings, the National Labor Relations Board concluded that the employer, both in creating the union and in signing the contract, was guilty of unfair labor practices. The Board therefore ordered that the company union be disestablished and the contract disregarded, and directed the reinstatement of the discharged employees with back pay.

The Circuit Court of Appeals affirmed this decision, and so did the Supreme Court by a majority decision.

The majority opinion of the Supreme Court held that though the employer had not conspired with the contracting union to discharge C. I. O. members, it had constantly desired to be rid of them and had signed the contract with knowledge that the union intended to use it to that end. Section 8 (3) of the National Labor Relations Act permits union-shop agreements with a union not established or assisted by unfair labor practices. The employer argued that there was no unfair labor practice after the certification and that the Board should not have inquired as to its actions prior to the approved settlement or the certification. The Supreme Court did not agree. It said that the estoppel of purely judicial proceedings does not apply to the work of

<sup>10</sup> — U. S. — (Dec. 13, 1944).

the Board, which may fashion its procedure appropriately to protect employees from unfair labor practices. If the procedure by way of settlement fails or there is a subsequent unfair labor practice, the Board may go behind a settlement it has approved, for a plenary investigation. The Board correctly found there was subsequent unfair labor practice and might therefore examine the employer's conduct before and after settlement and certification.

Under the National Labor Relations Act, the duties of a bargaining agent extend beyond the interest of its own group, to include fair and impartial representation of the interests of all employees. Prior affiliation with a nonmajority union cannot be ground for discharge from employment. In permitting a closed shop, Congress did not intend this result.

It would have been unfair for the employer to discharge employees, because of C. I. O. membership, in the absence of a union contract; it is no less unfair if the discharge results from collaboration with a "union" of the employer's own creation, under a contract intended (and known to be intended) as a "legal means" of effecting the discharge.

The company argued that it had no control over membership rules of the certified union and was bound by law to bargain with it. The Supreme Court said the obligation to bargain did not require the employer to accept a contract under which it knew discriminatory discharges would occur; further, after signing the contract, the company did not do its utmost to avoid such discharges.

The dissenting opinion emphasized factually that the C. I. O. union had itself suggested the closed-shop agreement, that there was no conspiracy, and that the employer acted in good faith after the certification, that all unions have insisted on the right to prescribe qualifications for members and have felt the need to exclude persons disloyal to the union. The opinion emphasized from the legal viewpoint (1) that signing a closed-shop agreement cannot be considered as such assistance to a union as to make it company-dominated and therefore make the closed-shop clause illegal, (2) that it is far from clear that the National Labor Relations Board has control over unions to the point of prescribing their membership rules, even if done as a condition of approving a settlement or of certifying a union, (3) that the National Labor Relations Act was never intended to give employers control over union-membership rules, (4) that the majority of the Court failed to indicate how and where the employer should draw the line in approving or disapproving a standard for the selection of union members, or how the employer can avoid dominating a union if the employer controls union membership, or violating the law by carrying out a closed-shop contract if the employer has not prevented union membership rules from creating a closed union.

*Racial discrimination by railway labor union enjoined.*—The Supreme Court of the United States in *Steele v. Louisville & N. R. Co.*<sup>11</sup> confirmed the right of a Negro railroad employee to obtain in the courts protection against the union and the railroad and defined his rights under the Railway Labor Act. The decision of the State supreme court denying his claims was reversed.

The action was brought by a Negro fireman for himself and his fellow workers in that craft. Negro firemen are excluded from

<sup>11</sup> — U. S. — (Dec. 18, 1944).



the Brotherhood of Locomotive Firemen and Enginemen; white firemen who are union members are a majority of all firemen employed; such majority permits them to choose, under the act, the collective-bargaining representative; the Brotherhood, so chosen, becomes under the act the sole representative of all firemen. It had been the practice of the railroad to promote only white firemen to posts as engineers. The Brotherhood, purporting to act for all firemen, proposed a new contract with the railroad by which only "promotable" men should be employed as firemen. The result would be to exclude Negroes from jobs as firemen by agreement as they were already excluded, by practice, from jobs as engineers. The Negro firemen were not notified or consulted as to this proposal or as to changes in the agreement, later actually entered into, which limited the number of Negroes in each seniority district, prevented their transfer to districts in which they were not working, and otherwise limited their seniority and employment rights.

After the plaintiff had been demoted from a passenger pool to a freight pool and then to a switching engine (each job harder and less remunerative) and had been replaced by white firemen with less seniority, he asked for an injunction against enforcement of the contracts, also an order to prevent the Brotherhood from purporting to act for the Negro firemen while discriminating against them and acting without notice to them. He prayed for a declaratory judgment as to his rights, and for damages against the Brotherhood for wrongful conduct. The State court decided that there was no cause of action; that the Brotherhood, being majority choice, had absolute power to deal with the railroads and could destroy or create seniority rights, acting for the craft as a whole and without legal obligation or duty to protect rights of minorities from unfair treatment.

The United States Supreme Court suggested that if the Railway Labor Act compelled a minority to comply with a contract made against their interest by their alleged representatives who had no duty to consider their interests, the act might well be unconstitutional; but it does not have this meaning. The union which is the majority choice does not have plenary power to sacrifice, for the benefit of union members, the rights of a minority of the craft. The minority, not being union members, confer no rights by consent; hence the act must be the source. Analysis of numerous clauses indicates that the representation and the bargaining contemplated were for the class or craft; further, the purpose of peaceful settlement of problems would not be achieved by driving minorities to strike.

Since the act, in dealing with the carriers, requires them to bargain exclusively with the majority representative, minorities cannot choose or be represented by a representative of their own. The majority choice must represent the craft or class, and not the majority, and must act for and not against those whom it represents. The duty of the statutory representative of a craft to protect equally the interests of craft members is as exacting a duty as that which the Constitution imposes on a legislature as to persons. The act, which permits the Brotherhood to create and restrict the rights of those it represents, requires that it exercise that power fairly on behalf of all, without hostile discrimination against any. Discriminations based on race alone are obviously improper; the limits of proper distinction

based on seniority, type of work, or skill need not be outlined at this point.

The Brotherhood may determine who shall be its members, but it must represent nonunion or minority union members fairly, impartially, and in good faith; it must give them notice and opportunity for hearing, and must consider their views.

The complainant may resort to the usual remedies of injunction and claim for damages in this case, in the absence of an available administrative remedy. The National Railway Adjustment Board cannot deal with disputes between employees and their representatives, will not entertain individual complaints if there is a labor organization in action, and is selected by the very majority against whom this complaint was made.

In a concurring opinion filed by Mr. Justice Murphy, he took the position that although a union is a private organization, its power to represent and bind a class is derived from Congress, and any interpretation of the act conferring that power which argues that rights of individuals may be infringed on racist principles argues thereby that the act is unconstitutional.

In a companion case, *Tunstall v. Brotherhood*,<sup>12</sup> the Supreme Court of the United States decided that the United States district courts may entertain actions to protect the minority rights above described, without the requirement of diversity of citizenship, since the right is a Federal right, implied from the statute, and the case arises under a law regulating commerce.

### *National War Labor Board Decisions*

*Limits on review of arbitration awards.*—The National War Labor Board recently reversed Regional Board X and held an arbitration award not subject to revision in re *Employing Lithographers Assn.*, Case No. 111-582-AR (Oct. 30, 1944). A round robin of opinions was filed, discussing policy in regard to arbitration awards which the parties have agreed shall be final, subject to review and approval by the War Labor Board. The facts were as follows: A contract was signed shortly before the enactment of the stabilization law; the union promptly reopened the matter, asking for the increase authorized under the "Little Steel" formula. This wage-increase claim was arbitrated under the contract. The award denied the increase because the arbitrators thought so early a demand for change was unfair. Regional Board X disagreed, and granted the increase to the "Little Steel" limit.

The National War Labor Board applied its theory that in regard to such arbitrations, the only basis of Board action is correcting violations of stabilization policy; that the policy does not require payment of a 15-percent increase but does prohibit wage raises in excess of that. The position of the labor members was that the arbitrators had exceeded their authority and that the Board's review should not be confined to cutting down excess awards but should work both ways, by lifting an inadequate wage increase to the level permissible under the "Little Steel" decision.

*Employer compelled to discharge union members who resigned.*—In affirming an arbitrator's award on the subject of Bethlehem-Fairfield

<sup>12</sup> — U. S. — (Dec. 18, 1944).

Shipyard, Inc., the National War Labor Board<sup>13</sup> approved his decision that an employer, under a maintenance-of-membership contract, must discharge any union member who loses his good standing in the union. In this instance the employees had resigned and were then formally expelled, after conviction on charges of violating bylaws of the local union on union-loyalty requirements. The Board said that failure to pay dues is a recognized ground for loss of standing but is not the exclusive ground which will be recognized. The financial aid afforded to unions is a minor reason for granting union security. Such clauses are given in recognition of the cooperation of unions in keeping labor in line during the war period, when freedom to strike and freedom to seek wage increases are subjected to restrictions. Maintenance-of-membership should therefore be so interpreted and enforced as to support the union in performing its obligations, in cases in which discipline is used.

The Board noted that the voluntary character of the resignation made irrelevant any inquiry into the cause of the subsequent expulsion. However, the Board indicated that a union may not be the sole judge of expulsion and loss of union standing in every case, because the War Labor Board, which grants union security, may have an obligation to develop a form of review for protection of union members against improper use of the union's power.

The employer had claimed that its refusal to discharge the men was based on the filing of a representation petition with the National Labor Relations Board before the date of expulsion and request for discharge, by a rival union with which the men who resigned may have been working. The employer feared that the National Labor Relations Board might hold the discharge an unfair labor practice. The arbitrator found this no excuse, for several reasons; and by the time the arbitrator's decision was reviewed the petition to determine representation had been rejected.

*Seniority for industry draftees.*—The National War Labor Board, in dealing with the bakery industry in which seniority is the basis for the drivers' choice of routes, resolved a dispute case (*In re Tulsa and Sapulpa Bakeries*, Case No. 111-1512-AR) by directing that the contract contain a clause that draftees, volunteers, or those inducted by the Federal Government into defense industries, shall accumulate seniority during defense employment. The industry draftees were thus related in treatment to military draftees, whom the contract safeguarded from loss of seniority.

*Severance-pay order for steelworkers.*—The National War Labor Board, in handling the steelworkers' dispute with Carnegie-Illinois Steel Corporation, refused to make any award or recommendation as to an hourly increase beyond the warrant of the "Little Steel" formula and merely recommended investigation of the guaranteed annual wage. The Board did, however, approve a grant of severance pay under the proved special circumstances of the steel industry, which included large and unusual plant additions in the war years. The Board left the parties to negotiate detailed provisions along the following lines: The agreement need not provide severance pay for displacement by the ordinary peacetime technological improvement; it should emphasize the regular working force rather than war-service employees; its principle should be that of an appropriation of part of financial savings as

<sup>13</sup> By the Shipbuilding Commission, Case No. 111-8485-D (Dec. 1, 1944).



compensation to those whose loss comes from the economy, i. e., the abandonment of older plant units for war-built, more efficient units. (In re *Carnegie Steel Corp.*, Case No. 111-6230-D (Nov. 25, 1944).)

*Declaratory judgment supersedes arbitration award.*—The Circuit Court of Appeals for the Fifth Circuit affirmed a declaratory judgment of the court below and decided, without regard to action by the National War Labor Board, that questions of seniority<sup>14</sup> and of length of workweek were not arbitrable under the union contract in question. (In re *Oil Workers International Union v. Texoma Natural Gas Co.*, — Fed. — (Dec. 1, 1944).)

The history of the conflict was as follows: The union called for arbitration and the employer refused. The union then referred the matter to the National War Labor Board as a dispute case and that Board ordered arbitration under the contract, refusing to consider it a dispute case. The arbitrators' award was attacked by the employer in this court proceeding, whereupon the union notified the National War Labor Board of the employer's refusal to comply with the arbitrators' award and asked the War Labor Board to enforce compliance.

Though the War Labor Board had not yet acted, the appellate court considered the case one properly handled in the courts; a dispute as to obligations of a current contract was a proper subject for declaratory judgment. The National War Labor Board, said the court, is not vested with judicial functions and its action cannot exclude the jurisdiction of a court; the Board itself recognizes that its determinations are subject to contrary conclusions of courts having jurisdiction. Not only could the court below properly act but the parties need not await the exhaustion of administrative remedies granted by the War Labor Disputes Act and Executive Order No. 9017, before asking for declaratory judgment.

### *Decisions on National Labor Relations Act*

*Discrimination in change to hourly rate.*—The National Labor Relations Board recently considered the question whether its organic act was violated by an employer's one-sided action in changing certain salaried employees (but not all) to an hourly basis after they joined a union. The employer also refused to negotiate with the union about this change. The Board concluded that the employer had discriminated as to conditions of employment because of union membership and had interfered with the right of self-organization and had refused to bargain collectively. (In re *General Motors Corp.*, 59 N. L. R. B. No. 205 (Dec. 19, 1944).) Payment by hourly rate or salary is a vital condition of employment, as to which collective bargaining is required.

*Employer's misconduct nullifies settlement.*—A dispute as to discriminatory discharge had resulted in an agreement between union and employer for reinstatement without back pay. One employee, because he was not to receive the back pay, refused reinstatement at a time when the employer was still adhering to the agreement. This employee's rights were held to be definitely ended by his refusal. However, when the employer later resumed anti-union practices, the

<sup>14</sup> Compare assumption in this case that seniority status of employee is substantive right of individual, which the employer has a right to have a court determine, with the analysis in case noted in *Monthly Labor Review*, January 1945 (p. 124).

National Labor Relations Board held that other discharged employees involved in the original settlement were entitled to reinstatement with back pay. This was so not only because the settlement itself preserved the right to reenter charges if the terms of settlement were violated, but because the Board will not give effect to a compromise of unfair labor practices in a situation in which the employer violates his agreement or continues the unfair practices. (*In re General Fireproofing Co.*, 59 N. L. R. B. No. 80, Nov. 20, 1944.)

*Individual bargaining as unfair labor practice.*—In a case in which a collective-bargaining representative had been certified but the employer continued to deal directly and individually with employees on grievances, rates of pay, and conditions of work, the National Labor Relations Board held that the employer was not only improperly refusing to bargain, but was also engaging in an unfair practice of a character to undermine the union, induce defections, and destroy collective bargaining. The employer was therefore ordered to desist.<sup>15</sup> It was no excuse that the conduct was intended to bridge the period between certification of the union and court review.

*Court reopens National Labor Relations Board hearing.*—An employer asked the Circuit Court of Appeals to vacate an order of the National Labor Relations Board entered after a hearing at which the employer's case was not presented. The employer had asked for a postponement because of sickness of counsel and other factors and, on refusal, had withdrawn from the hearing. The court, in *Mississippi Valley Structural Steel Co. v. N. L. R. B.*<sup>16</sup> did not vacate the Board's order, but found the grounds for postponement sufficiently substantial to make the refusal an abuse of discretion; it therefore remanded the case to the Board with instructions to permit employer to submit additional evidence, to consider this evidence, make and file new or additional findings of fact, and forward all this as part of the transcript on appeal to the circuit court, together with the Board's recommendations, if any, for the modification, setting aside, or enforcement of its prior order.

*No unions for plant-protection employees in wartime.*—The Sixth Circuit Court of Appeals in *National Labor Relations Board v. Jones & Laughlin Steel Corp.*<sup>17</sup> refused to enforce orders of the Board requiring employers in war production to bargain with a union certified as representing plant guards, watchmen, firemen, patrolmen, and others of similar occupation. The court considered that the Board erred in its certification; that the National Labor Relations Act requires that the public interest be considered in deciding what is an appropriate unit for collective bargaining; that it is against the public interest in wartime for watchmen at war plants, organized under military discipline, sworn in as officers of the United States, to be exposed to the strain of possible conflict between their duties and their interest as union members. Such strains would be detrimental also to the free flow of commerce.

<sup>15</sup> *The Arundel Corporation*, 59 N. L. R. B. No. .... (Nov. 25, 1944).

<sup>16</sup> — Fed. (2d) — (C. C. A. 8, Dec. 11, 1944).

<sup>17</sup> — Fed. (2d) — (C. C. A. 6, Dec. 8, 1944).

# Wage and Hour Statistics

## Wages in Petroleum Drilling and Production in the Southwest, April 1944<sup>1</sup>

### Summary

IN APRIL 1944, straight-time average hourly earnings for 22,907 male workers, employed by 355 companies engaged in petroleum production and the drilling of oil and gas wells, in Oklahoma, Texas, and Louisiana, reached \$1.07. This average is higher by 5 cents an hour than the \$1.02 average recorded in 1943 and probably exceeds all previous average hourly earnings established in the petroleum industry in the Southwest.

Bureau of Labor Statistics studies in 1943 and 1944 reveal that 67 percent of the workers covered in 1944 were employed in jobs paying \$1.00 or more per hour, as compared with 58 percent in 1943. In these 2 years 10 and 8 percent, respectively, of the men were in jobs paying \$1.25 or more per hour.

Comparison of hourly earnings, by States, for 1944 shows that petroleum workers averaged \$1.09 in Louisiana, \$1.07 in Texas, and \$1.04 in Oklahoma. The highest average hourly wage (\$1.12) was paid in the Louisiana Gulf Coast area and the lowest (\$1.03) in north Texas. The wages paid by large companies were consistently higher than those paid by the small ones. Companies operating under bargaining agreements with unions—generally the larger companies—paid higher wages than those without such agreements.

Among the 15 individual key occupations studied, that of rotary driller showed the highest average wage, \$1.57 per hour. Cable drillers averaged only \$1.20, ranking below class A maintenance men (\$1.21), and equaled the rate for gang pushers (\$1.20). Other averages of \$1.00 or more were received by derrickmen (\$1.09), rotary firemen (\$1.07), tool dressers (\$1.03), rotary floormen (\$1.02), pumpers and switchers (\$1.01), and truck drivers, 2½ tons and over (\$1.00). Watchmen (70 cents) earned the lowest wages.

### Scope and Method of Study

This study of wages in petroleum production and drilling in 1944, paralleling a similar study by the Bureau of Labor Statistics in 1943,<sup>2</sup> was undertaken to provide data for use by the War Labor Board in the administration of the wage-stabilization program. The material has

<sup>1</sup> Prepared in the Division of Wage Analysis by Walter T. Watson, Regional Wage Analyst for the Dallas Region, with the assistance of Gladys D. Meisel.

<sup>2</sup> See Earnings in Oil-Well Drilling and Crude-Petroleum Production in the Southwest, April 1943, by Joe E. Brown in Monthly Labor Review, February 1944. For comparison with the data here presented, some of the 1943 tabulations have been modified slightly.



also been of use to other administrative agencies and to the industry itself. The present study not only provides the latest available information on wage rates in the industry in the Southwest, but also permits the measurement of wage trends in that region during a critical war year.

In scope and method the 1943 and 1944 studies were closely similar. The earlier study was based on a sample of 401 companies employing 27,310 workers, of whom 21,805 were included in the key jobs selected for study.<sup>3</sup> The 1944 study covered 355 companies employing 27,901 workers, of whom 22,907 were in the selected key jobs. Both samples are believed to be representative of the industry in the Southwest region for the years in which they were selected. Analysis of the samples for the respective years reveals a slight gain in the proportion of medium-sized companies at the expense of small ones, and a slight increase in the importance of the Texas industry at the expense of that in Louisiana.

As is characteristic of the oil industry, many of the companies were engaged in multiple operations.<sup>4</sup> The number of such operations studied was 730 in 1943 and 601 in 1944. Of the total operations in 1944, 443 were in Texas, 104 in Oklahoma, and 54 in Louisiana.

The wage data used in this report were taken directly from pay-roll records by trained agents of the Bureau. Care was taken to insure comparability of occupation from company to company through the use of standard job descriptions, each employee being classified according to the duties he performed rather than by his occupational title.

In the current survey average hourly earnings, exclusive of premium overtime payments and shift differentials, were obtained for 15 key occupations. Five classifications (carpenters, class A and class B, electricians, class A and class B, and machinists, class A), comprising half of 1 percent of the total force in 1943, were excluded from the 1944 survey. One occupation (maintenance men) was divided into skill classes A and B.

Several criteria were used in the selection of these occupations: (1) Definiteness and clarity of the occupational classification; (2) numerical importance; (3) critical importance to the war effort; (4) importance from the standpoint of collective bargaining; and (5) representativeness of skill and range of rates. It is apparent that all these requirements are not equally satisfied by the occupations selected. Considered as a whole, however, they are believed to present an adequate picture of the wage structure of the industry. The numbers of workers studied are shown in table 1.

<sup>3</sup> These data have been revised slightly, to increase their comparability with the 1944 information.

<sup>4</sup> An "operation" is considered to include all the drilling and/or production activities of a company which are within any one of the areas designated for purposes of this study. For example, there are six such areas in Texas, and this would be the maximum number of operations which any one company could have in this State. The area subdivisions used are those accepted by the industry itself. They are determined primarily by geological factors and consequent similarity in production problems encountered within the area; they do not necessarily represent areas characterized by different labor-market conditions.

TABLE 1.—Male Workers in Selected Occupations in Oil-Well Drilling and Crude-Petroleum Production in the Southwest, by State, April 1943 and April 1944

Occupation	Southwest, total		Texas		Louisiana		Oklahoma	
	1943	1944	1943	1944	1943	1944	1943	1944
All selected occupations.....	21,805	22,907	14,262	15,384	2,456	2,197	5,087	5,326
Derrickmen.....	1,012	1,651	683	1,136	172	234	157	281
Drillers, cable.....	198	213	144	141	4	—	50	72
Drillers, rotary.....	1,353	1,895	943	1,323	195	245	215	327
Drillers' helpers, rotary, not otherwise classified.....	1,539	949	1,277	736	93	42	169	171
Firemen, rotary.....	785	930	551	666	151	163	83	101
Floormen, rotary.....	1,836	3,287	1,186	2,304	372	540	278	443
Gang pushers.....	947	851	620	579	91	83	236	189
Maintenance men (class A and class B).....	167	287	77	166	44	15	46	106
Pumpers and switchers.....	7,945	7,669	5,151	5,021	715	444	2,079	2,204
Roustabouts.....	5,271	4,427	3,104	2,821	530	359	1,637	1,247
Tool dressers.....	(2)	172	(2)	113	(2)	—	(2)	59
Truck drivers, under 2½ tons.....	284	339	183	222	54	52	47	65
Truck drivers, 2½ tons and over.....	196	157	122	101	7	13	67	43
Watchmen.....	148	80	123	55	14	7	11	18

<sup>1</sup> The figures for all selected occupations for 1943 include carpenters, classes A and B, electricians, classes A and B, and machinists, class A. These were distributed as follows: Texas, 98; Louisiana, 14; Oklahoma, 12; total Southwest, 124.

<sup>2</sup> Data not available.

### Characteristics of the Industry

**Production in the Southwest.**—Approximately 37 percent <sup>5</sup> of the estimated total world production of oil in 1943 was pumped from wells in the three southwestern States covered in the present study. Sixty-seven percent of the world output came from the United States alone and, within this country, Texas, Oklahoma, and Louisiana contributed 835,468,000 barrels or 55 percent of the national yield.

Texas, in first place, supplied 589,129,000 barrels or 39 percent of the United States output. California (284,286,000 barrels), Louisiana (125,780,000 barrels), and Oklahoma (120,559,000 barrels) followed with percentages of 19, 8, and 8. Thanks largely to a substantial gain in the output of Texas wells, national production surpassed all previous records in 1943. It is of interest to note that increased output of proved fields rather than gains from new discoveries account, in the main, for the record set.

Drilling operations in the United States, unlike production, declined both in 1942 and in 1943. The explanation of the decrease apparently lies in a complex set of conditions which include progressive exhaustion of the opportunities for exploration, rising costs, scarcity of materials, and a fixed price for the product. The number of wells drilled fell 39 percent in the earlier year, less than 2 percent in the latter. In the 3-State area the 1943 drop was greater—7 percent. While this total decline in the Southwestern States was small, it applied primarily to drilling in proved fields. The number of "wildcat" or exploratory wells drilled during the year increased 40 percent in Oklahoma, 17 percent in Texas, and 10 percent in Louisiana. Nearly half (48 percent) of all such wells drilled in the United States during 1943 were in

<sup>5</sup> Production and drilling statistics used in this discussion are those reported in the Annual Number of the Oil and Gas Journal, January 27, 1944.

these States. The decline in drilling in proved fields was due in part to the "spacing" regulations of the Petroleum Administration for War, prompted by wartime shortages in steel and other materials.

Both in production and in drilling the Southwest registered substantial gains between early 1943 and early 1944, the periods covered in the Bureau's wage studies.

*Accommodation to labor shortage.*—The requirements of war have made it necessary to protect, as far as possible, the labor supply vital to increased production. Relatively high wages, active recruitment, and the policy of local draft boards have generally prevented manpower crises in Texas, Oklahoma, and Louisiana. For example, no instance of the abandonment of pumping operations because of inability to obtain workers was reported by the Bureau's representatives during their more than 350 visits to oil companies.

Labor shortages have, however, brought about numerous changes in policy and in scope or method of operation. Perhaps the major labor adjustment between April 1943 and 1944 was an increase in the number of hours in the average workweek. There was also evidence of a considerable amount of upgrading of labor. Other accommodations to labor shortages repeatedly mentioned in field reports were (1) idleness of rotary rigs, especially in west Texas and the Texas Panhandle, (2) operation of two tours (shifts), and sometimes only one, instead of the customary three, by entire drilling crews, (3) the staying over of one or two men of a 5-man crew for a double shift, (4) trend toward "mileage allowances" for employees living at a distance from their work, (5) reduction in size of drilling crews, particularly the elimination of one of the floormen and the distribution of his duties among the remaining personnel, (6) deterioration in the maintenance of leases by roustabouts, i. e., less cleaning up and repair, (7) increase in the number of part-time workers at all levels and in all classifications, and (8) extension of the range of operations by pumpers and switchers, i. e., caring for additional wells by moving from lease to lease.

### *Oil-Field Workers*

The oil-field workers in the Southwest are typically rural, male, energetic, migratory, and married. In general they spring from the soil and return to it in their declining years. Obviously the above portrait generalizes broadly and requires qualification for specific place and occupation.

*Drillers.*—Perhaps the most picturesque figure in the petroleum industry is the driller. On duty 7 days a week, responsible for the safety of his crew, charged with the care of the costly equipment of which the rig is composed, threatened with emergencies created by high gas pressures, blow-outs, fire, broken cables, overhanging weights, and unexpected geological formations, he labors under continuous strain and danger.<sup>6</sup> A moment of fatigue or carelessness may result in

<sup>6</sup> Drilling is the most hazardous branch of the petroleum industry, according to statistics reported by both the U. S. Bureau of Mines and the National Safety Council. Bureau of Mines figures on 108 drilling companies in 1942 show an accident-frequency rate of 52.74 per million man-hours. The rate for 530 production companies was 18.27. Both rates were far above those of the 12 other branches of the oil industry listed. (National Petroleum News, December 29, 1943, p. 9.)

National Safety Council figures, based on reports from 180 companies, indicate a similar degree of danger in drilling occupations. Although the petroleum industry as a whole showed an accident-frequency rate of 11.72 in 1942, the rate in producing departments was 15.28, and in drilling departments 46.34. Not only were accidents more frequent among drilling departments, but they were also more severe. (National Petroleum News, December 8, 1943, pp. 42, 43.)



his breaking a leg or smashing an arm. By "dropping" a "string" of pipe he may cost his company from \$5,000 to \$25,000. Typically, he has served an "apprenticeship" as a "roughneck,"<sup>7</sup> slipping and shuffling about ankle-deep in mud over innumerable derrick floors. He knows intimately every operation performed in the field and is somewhat older than his associates. One large Texas company, for example, reports the average age for its crew members as follows: Drillers 38, firemen 36, derrickmen 32, floormen 32. Another company, reporting only its Texas Gulf Coast workers, gives corresponding averages of 44, 41, 36, and 34.

It is sometimes asserted that "drillers don't quit—they're fired." Not infrequently, in fact, there are successive discharges for carelessness, injury, drunkenness, or age. Many a "broken-down driller" finishes his career with lowered status and diminished earnings—as pumper, machinist in a shop or plant producing oil-field equipment, or farmer. In rare instances, however, the driller may end his days as lease owner, contractor, or producing executive.<sup>8</sup>

*Derrickmen.*—The derrickman works on a small platform suspended above the well. He must be able on occasion to cover the 100 feet of vertical distance to the top of his work station with speed and agility. Youth and skill are clearly demanded. In the entire industry, production and drilling alike, only drillers, gang pushers, and some maintenance men (employed chiefly by larger companies) receive higher average hourly earnings than the derrickmen.

*Rotary firemen.*—The rotary fireman, though commonly only 4 or 5 years older than the derrickman, may outlast him by a dozen years. However, it should be noted that firemen are gradually being replaced by motormen and enginemen as steam power gives way to electricity, Diesel motors, gasoline, and other more modern forms of energy. This change is especially apparent in areas where there is a scarcity of water or where water requires much costly treatment.

*Production crew.*—The production crew, organized on a lower skill level than the drilling crew, normally includes pumpers and/or switchers and roustabouts. The switcher operates in fields where wells flow under natural gas pressure and do not require pumps. The pumper often lives on the property ("lease") being worked for oil, with house and utilities furnished. Sometimes he is given space for a garden, chickens, and cows. Though paid for a basic week ranging as a rule from 40 to 48 hours, the pumper may labor many more or many fewer hours. One firm reported 84 hours as the workweek of its pumpers for a given period. If equipment is in satisfactory condition, however, relatively little actual work may be required. As a consequence, numbers of pumpers have small farms which they maintain along with their duties as employees. Not infrequently men in the occupation hire out to several companies operating in the same territory, and spend part of the day with each company. Very often a farmer living in the vicinity of a producing field will accept part-time employment and tend wells on one or more leases.

Roustabouts, who perform those duties of lease and well maintenance requiring relatively little skill, are quite generally referred to

<sup>7</sup> Rotary fireman, rotary floorman, or derrickman.

<sup>8</sup> An item from the "Personal Notes" column of an oil journal (names and places altered) reads as follows: "A. D. Smith recently promoted to drilling superintendent for the X Oil Corporation in the Texas Gulf Coast area at Houston started as a roughneck in Spindletop in 1917, joined the Y Petroleum (now X Oil) as a driller at Smackover in 1927."

as the "common labor" of the oil industry. The duties of roustabouts, however, are usually more responsible than those of common laborers and involve work which is consistently heavy and frequently dangerous. Wages of these men, therefore, are higher as a rule than those paid to ordinary common labor.

Roustabouts are not only employed in oil-production activities; on occasion they are also engaged in pipe-lining, and in drilling operations that are getting under way or that are approaching completion, in the preparation of slush pits, laying of water and fuel lines, moving equipment on and off the drilling site, and like tasks. Such work is discontinuous. When a well clean-up or servicing job is finished, or when a drilling site has been prepared, activity ceases. As a result large companies tend to transfer roustabouts from one lease or area to another, thus keeping them continuously on the pay roll. Smaller establishments, on the other hand, report the employment of permanent roustabouts in limited numbers only. Local men, temporarily hired and less skilled than in pre-war years, often constitute the majority of the workers.

Substantial age differences distinguish the "production end of the business" and the "drilling end of the business," according to the Subcommittee on Manpower, Petroleum Administration for War, District III. In May 1944 the age distribution of 15,057 production workers in the four States of Arkansas, Louisiana, New Mexico, and Texas was as follows: 2 percent under 26 years, 7 percent between 26 and 30 years, 26 percent over 30 but under 38 years, and 65 percent over 38. The corresponding percentages for 5,559 drilling workers were 7, 13, 35, and 45. Available Southwestern records indicate that, though the number of boys and old men hired during wartime has been greater than usual, the employment trend away from the intermediate age groups, both in drilling and production, has been less marked than in industries less essential to the war economy.

### *Unionization of Workers*

Of the 355 representative companies surveyed in the Bureau's study, only 14 reported collective-bargaining agreements with unions. Seven of these unions were affiliated with the Oil Workers' International Union, C. I. O., and two with the International Union of Operating Engineers, A. F. of L. Five were independent unions. The 14 unionized companies, although constituting only 4 percent of the total number of companies, conducted 11 percent of the total number of operations and employed 33 percent of the workers. This indicates that union organization is more frequently found in large than in small companies. Eleven percent of all operations in Oklahoma, 10 percent in Texas, and 19 percent in Louisiana were handled by firms with union agreements.

### *Factors Affecting Total Earnings*

The average workweek among the operations studied was 49.2 hours. The most usual week was 48 hours, reported by 37 percent of the operations. A 56-hour week was reported by 33 percent, and a

40-hour week by 20 percent. Hours in the remaining instances ranged from 35 to 84.

Almost 99 percent of the establishments in the survey paid time and a half for hours in excess of 40 per week, and over 20 percent also paid this premium rate for hours in excess of 8 in any 1 day. About 80 percent of the establishments paid double time for work on the seventh consecutive day, while a few reported time and a half on the sixth or seventh consecutive day. Forty-five percent paid time and a half for work on 6 specified holidays; and about 2 percent paid different premium rates on 5 or 6 holidays.

Paid vacations were granted in 57 percent of the companies. In general, the length of the vacation varied from 1 to 4 weeks, depending in many cases on the period of service with the company. Twenty percent gave 2 weeks after 1 year of service; 17 percent gave 1 week after 1 year and 2 weeks after 2 years. Less than 10 percent paid for vacations of more than 2 weeks, and in most of these the long vacations were contingent upon extended service. An example is that of one company which allowed 4 weeks after 20 years, and 4 weeks for each 5 years thereafter.

Half of the operations in this study were conducted on a 3-shift basis, 3 percent had two shifts, and 47 percent had a daylight shift only. No differential was paid by any company for work on a late shift. Shift rotation was reported in 10 percent of the operations.

Wages were paid exclusively on a time-rate system. No incentive system was reported on any operation.

### *Average Hourly Earnings*

The 22,907 employees covered by this survey earned a straight-time average of \$1.07 per hour in April 1944. Louisiana reported an average of \$1.09, Texas \$1.07, and Oklahoma \$1.04. While these averages were obtained from the wages paid to workers in 15 selected occupations, they are believed to be representative of the straight-time earnings of all the workers in the industry. These selected occupations were well distributed across the wage structure, and they accounted for more than four-fifths of the total employment at the time of the 1944 survey.

The average for all workers in the 3-State region as a whole was 5 cents higher in April 1944 than in April 1943. The average in Louisiana rose by 7 cents, that in Oklahoma by 5 cents, and that in Texas by 4 cents in the 1-year period.

When the 9 producing-area subdivisions are compared, the Louisiana Gulf Coast ranked highest and north Texas lowest. The four areas with lowest averages were north Texas \$1.03, Texas Panhandle \$1.04, Oklahoma \$1.04, and north Louisiana \$1.05. Since these areas are, in general, characterized by shallow drilling, low yield per well, and high degree of stripper activity, it would appear that the marginal nature of operations may be partly responsible for the somewhat lower wage rates. At the same time this type of operation generally requires a less-skilled type of worker, particularly on drilling crews, and this factor also influences the level of wage rates.

Areas in which high gas pressures and deep drilling are factors, on the other hand, demand the most-experienced and most highly skilled



workers in the industry. Danger both to personnel and to expensive equipment is great, and rates of pay reflect these hazards. The Gulf Coast areas of Texas and Louisiana, where such operating conditions prevail, had the highest average hourly earnings (\$1.10 and \$1.12, respectively) in 1944, as they had in 1943 (\$1.06 and \$1.05).

Although the average hourly earnings in an area are determined to some extent by the character of the geologic structure and hence by operating conditions, they are also influenced by other factors such as dominance of large (generally higher-rate) companies, relative importance of drilling and production activities, degree of unionization, etc.

The change in averages in the period between the two surveys is noteworthy. The fact that increases occurred in each of the areas seems to imply a fairly widespread increase in rates of pay throughout the industry. Information on general wage-rate changes was collected as part of the survey, and although no detailed analysis of the influence of these changes on the area averages has been made, a preliminary check of the data permits the following statements: General wage-rate increases (those affecting 10 percent or more of a company's employees, or those affecting key occupations) were reported most often among drilling contractors; these companies accounted for 53 percent of the general increases. Approximately 23 percent of all small establishments, 48 percent of all medium-size, and 22 percent of all large companies granted wage-rate increases of the type described. Of the 355 companies studied, 28 percent increased their rates.

Another factor contributing to the increase in the averages shown for the two periods is the greatly accelerated drilling activity that took place throughout the region during the year. Drilling operations are the high-rate jobs of the industry, and any disproportionate increase in the number of such workers would be expected to influence the averages accordingly. Still a third factor is the reclassification of workers to higher-skill jobs at higher rates of pay.

These three factors have contributed in varying degrees to the increases in the average hourly earnings shown in the accompanying tabulation. Limitations of the data collected preclude any precise evaluation of each factor separately, and no effort has been made to gauge their relative importance.

	Average hourly earnings <sup>1</sup> in—	
	April 1943	April 1944
Southwest.....	\$1.02	\$1.07
Texas.....	1.03	1.07
Texas Panhandle.....	1.01	1.04
West Texas.....	1.03	1.07
North Texas.....	.95	1.03
East Central Texas.....	1.04	1.08
Southwest Texas.....	1.04	1.08
Texas Gulf Coast.....	1.06	1.10
Louisiana.....	1.02	1.09
North Louisiana.....	.99	1.05
Louisiana Gulf Coast.....	1.05	1.12
Oklahoma.....	.99	1.04

<sup>1</sup> All data are exclusive of premium payments for overtime and night work. In the preparation of these averages constant occupational weights were used, based on the distribution of workers by occupation in the Southwest as a whole in the respective years.

## OCCUPATIONAL DIFFERENCES IN EARNINGS

Straight-time average hourly earnings for individual occupations in oil-well drilling and crude-petroleum production in the Southwest in April 1944 ranged from 70 cents for watchmen to \$1.57 for rotary drillers (table 2).

TABLE 2.—Average Hourly Earnings<sup>1</sup> of Male Workers in Selected Occupations in Oil-Well Drilling and Crude-Petroleum Production in the Southwest, April 1944

Occupation	Number of operations in which occupation was found	Workers		Average hourly earnings	Number of workers in operations in which occupational hourly earnings averaged—				
		Number	Percent		Under \$0.80	\$0.80 and under \$0.85	\$0.85 and under \$0.90	\$0.90 and under \$0.95	\$0.95 and under \$1.00
All selected occupations:									
Number of workers.....		22,907		\$1.07	1,477	461	514	1,255	3,876
Percent.....			100.0	1.07	6.4	2.0	2.2	5.5	16.9
Derrickmen.....	166	1,651	7.2	1.09	1	1	3	10	73
Drillers, cable.....	51	213	.9	1.20				3	
Drillers, rotary.....	209	1,895	8.3	1.57					
Drillers' helpers, rotary, not otherwise classified.....	48	949	4.1	.99	3	12	6	83	398
Firemen, rotary.....	103	930	4.1	1.07		1	3	6	45
Floormen, rotary.....	162	3,287	14.4	1.02	9	1	18	110	1,568
Gang pushers.....	180	851	3.7	1.20	12	16	5	28	16
Maintenance men, class A.....	63	139	.6	1.21	1				4
Maintenance men, class B.....	26	148	.6	.98	2	4	1	8	59
Pumpers and switchers.....	482	7,669	33.5	1.01	715	191	248	587	1,074
Roustabouts.....	343	4,427	19.3	.97	610	203	186	312	579
Tool dressers.....	43	172	.8	1.03	3	9	12	19	13
Truck drivers, under 2½ tons.....	117	339	1.5	.96	55	10	22	53	25
Truck drivers, 2½ tons and over.....	71	157	.7	1.00	22	12	7	17	22
Watchmen.....	43	80	.3	.70	44	1	3	19	

Occupation	Number of workers in operations in which occupational hourly earnings averaged—								
	\$1.00 and under \$1.05	\$1.05 and under \$1.10	\$1.10 and under \$1.15	\$1.15 and under \$1.20	\$1.20 and under \$1.25	\$1.25 and under \$1.30	\$1.30 and under \$1.35	\$1.35 and under \$1.40	\$1.40 and over
All selected occupations:									
Number of workers.....	3,303	3,630	4,025	1,640	424	165	26	172	1,939
Percent.....	14.4	15.9	17.6	7.2	1.9	.7	.1	.7	8.5
Derrickmen.....	261	176	848	96	137	45			
Drillers, cable.....	22	6	41	33	36	46	10	4	12
Drillers, rotary.....			3		1	9		19	1,863
Drillers' helpers, rotary, not otherwise classified.....	410	24	13						
Firemen, rotary.....	131	428	134	139	37	6			
Floormen, rotary.....	787	171	304	319					
Gang pushers.....	48	66	74	241	118	32	4	145	46
Maintenance men, class A.....	5	14	16	19	44	17	3	1	15
Maintenance men, class B.....	56	11	6	1					
Pumpers and switchers.....	327	2,187	1,595	700	34	4	4	2	1
Roustabouts.....	1,150	415	953	19					
Tool dressers.....	74	3	9	18	3	3	4		2
Truck drivers, under 2½ tons.....	26	97	11	39			1		
Truck drivers, 2½ tons and over.....	3	22	18	16	14	3		1	
Watchmen.....	3	10							

<sup>1</sup> Exclusive of premium payments for overtime and night work.

Only one of all the fifteen occupations studied, that of watchman, reported average hourly earnings under 80 cents per hour for any of the 9 petroleum area subdivisions; these workers represented but

three-tenths of 1 percent of the total number of workers scheduled. The next lowest occupational average for the Southwest was that of truck driver (under 2½ tons) at 96 cents per hour. Three other averages fell within the 95 cents to \$1.00 range, namely rotary drillers' helpers (not otherwise classified), class B maintenance men, and roustabouts. These four occupations in the classification \$0.95 and under \$1.00 included 25.5 percent of all workers tabulated. Pumpers and switchers, largest employee block (33.5 percent of all workers), earned \$1.01 per hour. Roustabouts, next operation in size (19.3 percent), averaged 97 cents. Rotary drillers, comprising 8.3 percent of all workers studied, were the only workers receiving more than \$1.25 per hour. The second highest occupational average, for class A maintenance men, was \$1.21 per hour.

The distribution of all employees by wage-rate interval (based on occupational averages within each occupation) reveals that 6.4 percent were in jobs averaging less than 80 cents per hour, 26.6 percent in jobs paying 80 cents to \$1.00, and 67 percent in jobs paying \$1.00 or more. Ten percent were in occupations averaging \$1.25 or more. Comparison with similar figures for 1943 shows an increase in the percentage of workers in the higher rate ranges.

	Percentage distribution	
	1944	1943
Under \$0.80.....	6.4	11.9
\$0.80 and under \$1.00.....	26.6	30.7
\$1.00 and under \$1.25.....	57.0	49.8
\$1.25 and over.....	10.0	7.6
Total.....	100.0	100.0

It should be noted that this shift in the distribution of workers to the upper ranges does not reflect increased wage rates alone; changes in the volume of employment at jobs within the higher rates will as readily produce such variations in the distribution. The increased drilling activity known to have taken place in 1944 and the consequent percentage increase in number of workers in the higher-paid drilling occupations were undoubtedly factors of significance in the present instance. Detailed comparison of the distribution of average hourly earnings, shown in table 2, with a similar analysis for 1943 shows that the shift to higher earnings is primarily accounted for by changes in the groups receiving \$1.05 and under \$1.10, \$1.10 and under \$1.15, and \$1.40 and over. These are the earnings intervals in which a majority of the drillers, derrickmen, and firemen fall and these jobs in turn are the occupations in which increased employment has occurred.

Although the averages for individual occupations varied widely from one operation to another, a large proportion of the workers in several of the jobs were employed in operations paying very similar rates. Thus, 94 percent of all rotary drillers' helpers (not otherwise classified) were employed in operations paying 90 cents to \$1.05 for this work and 78 percent of all derrickmen and 75 percent of all rotary firemen were in the \$1.00 to \$1.15 range. The averages among different operations for gang pushers, pumpers and switchers, and



roustabouts, on the other hand, were characterized by a greater spread and a greater unevenness in distribution of workers. These occupations are the least standardized in job content, show the greatest variability in duties from company to company, and present certain other scheduling and tabulating difficulties which may be reflected in the averages. The workers in these occupations are frequently paid on a monthly or weekly salary basis for certain specified duties, and a detailed record of hours worked may not be kept. Pumpers, for instance, as elsewhere stated, are often on call for 24 hours per day, balancing days of long hours with others on which few or no hours are worked, as their duties require. In such cases, estimated "normal" hours must be used to arrive at average hourly earnings. The occupations of pumper, switcher, gang pusher, and roustabout are all predominantly associated with maintenance and production rather than drilling activities. The workers in these occupations are less mobile than the typical drilling-crew worker. They are not often required to move from remote location to location but are commonly drawn from local labor markets. Their rates of pay consequently reflect to some degree the differences in such market conditions.

#### AREA DIFFERENCES IN OCCUPATIONAL EARNINGS

Average hourly earnings for the occupations studied show relatively small differences from one petroleum area to another, as compared with those found within each area (table 3).

TABLE 3.—Average Hourly Earnings<sup>1</sup> of Male Workers in Selected Occupations in Petroleum, Drilling and Production in the Southwest, by Area, April 1944

Occupation	Texas									
	Entire State				Texas Pan-handle		West Texas		North Texas	
	Number of workers	General average	Lowest operation average	Highest operation average	Number of workers	General average	Number of workers	General average	Number of workers	General average
Derrickmen	1,136	\$1.10	\$0.72	\$1.27	39	\$1.01	381	\$1.10	111	\$1.06
Drillers, cable	141	1.23	1.00	1.77	43	1.21	57	1.23	27	1.26
Drillers, rotary	1,323	1.57	1.25	1.87	45	1.51	427	1.56	180	1.51
Drillers' helpers, rotary, not otherwise classified	736	.99	.80	1.09	20	.99	129	.99	279	.99
Firemen, rotary	666	1.08	.88	1.27	27	.99	150	1.08	41	1.06
Floormen, rotary	2,304	1.02	.75	1.18	83	.97	773	1.01	150	1.00
Gang pushers	579	1.20	.61	1.77	50	1.17	92	1.19	85	1.17
Maintenance men, class A	85	1.24	.63	1.57	3	1.12	21	1.16	7	1.07
Maintenance men, class B	81	.99	.70	1.16	10	.96	8	1.05	5	.95
Pumpers and switchers	5,021	1.02	.38	1.44	434	1.01	735	1.03	759	.95
Roustabouts	2,821	.97	.30	1.12	242	.98	478	.99	418	.94
Tool dressers	113	1.05	.80	1.33	36	1.03	44	1.06	25	.97
Truck drivers, under 2½ tons	222	.96	.40	1.31	21	.94	71	.90	31	.99
Truck drivers, 2½ tons and over	101	.99	.60	1.35	4	1.01	18	.96	18	.87
Watchmen	55	.72	.19	1.08	5	.54	10	.73	7	.45

See footnotes at end of table.

TABLE 3.—Average Hourly Earnings<sup>1</sup> of Male Workers in Selected Occupations in Petroleum Drilling and Production in the Southwest, by Area, April 1944—Con.

Occupation	Texas—Continued						Louisiana			
	East Central Texas		Southwest Texas		Texas Gulf Coast		Entire State			
	Number of workers	General average	Number of workers	General average	Number of workers	General average	Number of workers	General average	Lowest operation average	Highest operation average
Derrickmen.....	56	\$1.13	109	\$1.14	440	\$1.10	234	\$1.13	\$0.80	\$1.26
Drillers, cable.....	9	1.24	(?)	(?)	3	1.25				
Drillers, rotary.....	97	1.57	123	1.63	451	1.59	245	1.64	1.20	1.87
Drillers' helpers, rotary, not otherwise classified.....	168	.98	48	.97	92	1.02	42	1.02	.75	1.12
Firemen, rotary.....	46	1.10	74	1.12	328	1.07	163	1.09	.80	1.20
Floormen, rotary.....	116	1.05	246	1.04	936	1.02	540	1.04	.80	1.18
Gang pushers.....	130	1.20	70	1.19	152	1.24	83	1.24	.60	1.87
Maintenance men, class A.....	22	1.18	4	1.18	28	1.40	12	1.17	.96	1.24
Maintenance men, class B.....	4	.91			54	.99	(?)	(?)	(?)	(?)
Pumpers and switchers.....	1,435	1.02	501	1.01	1,157	1.06	444	1.03	.36	1.37
Roustabouts.....	610	1.00	316	.94	757	.97	359	.99	.50	1.12
Tool dressers.....	6	1.00			(?)	(?)				
Truck drivers, under 2½ tons.....	34	.99	27	1.03	38	.96	52	.97	.50	1.09
Truck drivers, 2½ tons and over.....	13	1.03	3	1.23	45	1.04	13	1.07	.62	1.24
Watchmen.....	10	.96	(?)	(?)	21	.72	7	.63	.55	.90

Occupation	Louisiana—Continued				Oklahoma: Entire State			
	North Louisiana		Louisiana Gulf Coast		Number of workers	General average	Lowest operation average	Highest operation average
	Number of workers	General average	Number of workers	General average				
Derrickmen.....	81	\$1.08	153	\$1.15	281	\$1.04	\$0.95	\$1.19
Drillers, cable.....					72	1.15	.91	1.35
Drillers, rotary.....	87	1.56	158	1.69	327	1.53	1.12	1.77
Drillers' helpers, rotary, not otherwise classified.....	26	.99	16	1.05	171	.98	.90	1.00
Firemen, rotary.....	62	1.04	101	1.13	101	1.03	.95	1.15
Floormen, rotary.....	179	.98	361	1.07	443	1.00	.95	1.12
Gang pushers.....	36	1.15	47	1.32	189	1.15	.83	2.30
Maintenance men, class A.....	6	1.14	6	1.20	42	1.16	.99	1.35
Maintenance men, class B.....	(?)	(?)	(?)	(?)	64	.96	.94	1.11
Pumpers and switchers.....	158	1.00	286	1.05	2,204	1.00	.43	1.21
Roustabouts.....	112	.97	247	1.00	1,247	.95	.50	1.16
Tool dressers.....					59	.98	.79	1.12
Truck drivers, under 2½ tons.....	14	.82	38	1.03	65	.94	.55	1.12
Truck drivers, 2½ tons and over.....	(?)	(?)	12	1.06	43	.97	.60	1.16
Watchmen.....	(?)	(?)	6	.58	18	.66	.24	1.04

<sup>1</sup> Exclusive of premium payments for overtime and night work.<sup>2</sup> Number of plants and/or workers too small to justify presentation of an average.

As the above table indicates, in 11 of the 15 occupations there was less than 20 cents difference between the highest and the lowest area averages; in 9 occupations the difference was less than 15 cents, and in 4 it was 10 cents or less. In most areas, some occupational averages were higher, others lower, than those for the Southwest as a whole. Only in Oklahoma were the figures consistently lower than those for the 3-State region. In no case did the averages in north Louisiana exceed, or those in the Texas Gulf Coast area fall below,

the corresponding figures for the Southwest region as a whole. The Louisiana Gulf Coast area paid relatively high wages in all but two occupations, and these were numerically unimportant. In view of the small differences among area averages and the lack of consistent patterns of variation, regional differences on a producing-area basis cannot be considered as of great significance in the determination of wage rates in this segment of the petroleum industry.

#### DIFFERENCES IN EARNINGS AND SIZE OF COMPANY

Two factors of apparent importance in contributing to interplant variations in occupational wage rates are unionization and size of company as measured by number of employees. As shown in table 4, large companies pay the highest rates, small ones the lowest, and the rates of medium-size plants lie between these two. The table also indicates less change from 1943 to 1944 in average hourly earnings in large establishments than in those of the other size categories. Rotary firemen, for instance, earned \$1.02 in small, \$1.04 in medium-size, and \$1.12 in large companies in 1944. The increase over 1943 earnings in the occupation was 6 cents in both small and medium-size companies and 3 cents in the large ones. For rotary drillers' helpers (not otherwise classified) the year's increases were 6 cents, 7 cents, and 1 cent, respectively, for the successive size classes.

TABLE 4.—Average Hourly Earnings<sup>1</sup> of Male Workers in Selected Occupations in Petroleum Drilling and Production, by Size of Company, April 1943 and April 1944

Occupation	Average hourly earnings					
	Small companies (9 to 50 employees)		Medium-size companies (51 to 250 employees)		Large companies (251 or more employees)	
	1943	1944	1943	1944	1943	1944
All selected occupations:						
Number <sup>2</sup> .....	4,709	3,722	4,934	6,480	12,038	12,705
Percent.....	21.7	16.2	22.8	28.3	55.5	55.5
Derrickmen.....	\$0.95	\$1.05	\$1.00	\$1.06	\$1.09	\$1.14
Drillers, cable.....	1.11	1.16	1.21	1.22	1.23	1.26
Drillers, rotary.....	1.43	1.51	1.48	1.52	1.61	1.65
Drillers' helpers, rotary, not otherwise classified.....	.91	.97	.93	1.00	.98	.99
Firemen, rotary.....	.96	1.02	.98	1.04	1.09	1.12
Floormen, rotary.....	.96	.98	.93	.99	1.05	1.06
Gang pushers.....	1.06	1.08	1.12	1.18	1.21	1.22
Maintenance men, class A.....	.96	1.12	1.01	1.14	1.02	1.25
Maintenance men, class B.....	.80	.84	.94	.99	1.07	.98
Pumpers and switchers.....	.80	.82	.94	.95	1.07	1.07
Roustabouts.....	.73	.74	.86	.91	1.03	1.04
Tool dressers.....	( <sup>3</sup> )	1.01	( <sup>3</sup> )	1.04	( <sup>3</sup> )	1.06
Truck drivers, under 2½ tons.....	.69	.69	.70	.84	.99	1.05
Truck drivers, 2½ tons and over.....	.88	.83	.99	.95	1.06	1.11
Watchmen.....	.50	.45	.64	.52	.72	.90

<sup>1</sup> Exclusive of premium payments for overtime and night work.

<sup>2</sup> Numbers reported for 1943 exclude 124 workers in occupations not shown in this table.

<sup>3</sup> Data not available.

#### DIFFERENCES IN EARNINGS AND UNIONIZATION

Companies with union agreements differ from those without such agreements (table 5) in much the same ways as have been indicated for large and small plants. Average hourly earnings are higher, and they



have been more stable in union than in nonunion establishments. For example, average hourly earnings of derrickmen, floormen, and roustabouts in union firms did not change between April 1943 and April 1944, but in nonunion companies increased by several cents an hour. Union averages not only changed less during the year, but they were also higher. This is well illustrated by these same occupations: union derrickmen, \$1.22, nonunion \$1.07; union floormen, \$1.14, nonunion \$0.99; union roustabouts \$1.06, nonunion \$0.89.

TABLE 5.—Average Hourly Earnings<sup>1</sup> of Male Workers in Selected Occupations in Union and Nonunion Petroleum Companies in the Southwest, April 1943 and April 1944

Occupation	Average hourly earnings			
	Companies with union agreements		Companies without union agreements	
	1943	1944	1943	1944
All selected occupations:				
Number of workers <sup>2</sup> .....	7,084	7,496	14,597	15,411
Percent.....	32.7	32.7	67.3	67.3
Derrickmen.....	\$1.22	\$1.22	\$0.99	\$1.07
Drillers, cable.....	1.40	1.32	1.13	1.19
Drillers, rotary.....	1.80	1.81	1.47	1.53
Drillers' helpers, rotary, not otherwise classified.....	.71		.93	.99
Firemen, rotary.....	1.17	1.16	.99	1.04
Floormen, rotary.....	1.14	1.14	.95	.99
Gang pushers.....	1.20	1.23	1.14	1.16
Maintenance men, class A.....	.98	1.21	1.02	1.21
Maintenance men, class B.....		1.07		.97
Pumpers and switchers.....	1.08	1.10	.93	.94
Roustabouts.....	1.06	1.06	.86	.89
Tool dressers.....	( <sup>3</sup> )	1.02	( <sup>3</sup> )	1.03
Truck drivers, under 2½ tons.....	.98	1.06	.76	.90
Truck drivers, 2½ tons and over.....	1.10	1.15	.98	.93
Watchmen.....	.84	.96	.60	.54

<sup>1</sup> Exclusive of premium payments for overtime and night work.

<sup>2</sup> Numbers reported for 1943 exclude 124 workers in occupations not shown in this table.

<sup>3</sup> Data not available.

The union companies included in this survey are predominantly large companies. The factors of size and unionization are so closely related that evaluation of the influence of either separately is not possible from the tabulations presented.

# Union Wages and Hours in the Baking Industry

## July 1, 1944

### Summary

THE average hourly wage rate for union bakery workers in 65 cities was \$0.853 on July 1, 1944. This represented an increase of only 0.7 percent from July 1, 1943. Union workers in Hebrew bakeries had the highest average, \$1.49 per hour, and those in cracker and cooky shops the lowest, 66.9 cents per hour. The highest occupational rate in the industry (\$1.821 per hour) was reported for first hands in Hebrew machine shops in New York; the lowest rate (35 cents per hour) was that of female helpers during their first 30 days of employment in cracker shops in Denver.

Straight-time hours averaged 41 per week, which was about the same as in 1943. Over three-fourths of the bakery workers had straight-time workweeks of 40 hours. An initial overtime rate of time and a half covered most of the union bakery workers. Practically all of the union members were covered by agreements providing for vacations with pay, and over two-thirds received pay for a limited number of holidays not worked.

### Scope and Method of Study

This study is one of a series of annual reports of union wage rates in various trades, started in 1907. The original studies included only 39 cities, but the coverage has been gradually extended to include 75 cities in 40 States and the District of Columbia. Reports containing effective union scales for bakery workers were obtained in 65<sup>1</sup> of these cities in 1944, and included 3,909 quotations covering 65,860 union members.

Scales collected were those in effect on July 1, 1944. Those which were in process of negotiation or before the War Labor Board at that time, but were made retroactive to July 1, are included in this report wherever possible.

<sup>1</sup> Union scales for bakery workers were obtained in the following cities:

Atlanta, Ga.	Kansas City, Mo.	Reading, Pa.
Baltimore, Md.	Little Rock, Ark.	Richmond, Va.
Binghamton, N. Y.	Los Angeles, Calif.	Rochester, N. Y.
Birmingham, Ala.	Louisville, Ky.	Rock Island (Ill.) district
Boston, Mass.	Madison, Wis.	(includes Davenport, Iowa,
Buffalo, N. Y.	Manchester, N. H.	and Moline, Ill.)
Butte, Mont.	Memphis, Tenn.	St. Louis, Mo.
Charlotte, N. C.	Milwaukee, Wis.	St. Paul, Minn.
Chicago, Ill.	Minneapolis, Minn.	Salt Lake City, Utah
Cincinnati, Ohio	Nashville, Tenn.	San Francisco, Calif.
Cleveland, Ohio	Newark, N. J.	Scranton, Pa.
Columbus, Ohio	New Haven, Conn.	Seattle, Wash.
Dallas, Tex.	New Orleans, La.	South Bend, Ind.
Dayton, Ohio	New York, N. Y.	Spokane, Wash.
Denver, Colo.	Oklahoma City, Okla.	Springfield, Mass.
Des Moines, Iowa	Omaha, Nebr.	Tampa, Fla.
Detroit, Mich.	Peoria, Ill.	Toledo, Ohio
Duluth, Minn.	Philadelphia, Pa.	Washington, D. C.
Grand Rapids, Mich.	Phoenix, Ariz.	Wichita, Kans.
Houston, Tex.	Pittsburgh, Pa.	Worcester, Mass.
Indianapolis, Ind.	Portland, Oreg.	Youngstown, Ohio
Jacksonville, Fla.	Providence, R. I.	

The averages and percentages of change given in this report are weighted according to the number of union members covered by each scale. The average thus reflects not only the actual scales of wages and hours provided in union agreements, but also the number of members benefiting from these scales.<sup>2</sup>

Since 1941 the data have been classified according to the various types of baking; separate figures are shown for hand shops, machine shops, pie and pastry shops, cracker and cooky shops, Hebrew baking, and other specialized baking. Other specialized shops include those baking French, Polish, Bohemian, Scandinavian, Spanish, and Italian products.

### *Trend of Wage Rates and Hours*

Based on comparable quotations for July 1, 1943, and July 1, 1944, average hourly wage rates increased 0.7 percent during the year, bringing the new index number to 122.0, an increase of 22 percent since 1939 as shown in the accompanying tabulation. Wage rates have been advancing rather steadily since 1936, the first year for which sufficient information is available for comparison. The greatest wage increase, 9.6 percent, occurred between 1941 and 1942; the smallest increase occurred between 1943 and 1944.

There was no change in average straight-time weekly hours during the year ending July 1, 1944. Straight-time hours have been gradually decreasing since 1936, although the net change has been a reduction of only 3.5 percent.

	Index (1939=100) of—	
	Rates per hour	Hours per week
1939.....	100. 0	100. 0
1940.....	102. 7	99. 5
1941.....	106. 1	99. 2
1942.....	116. 3	99. 1
1943.....	121. 2	98. 6
1944.....	122. 0	98. 6

<sup>1</sup> Revised in 1944 to include wage changes that were retroactive to July 1, 1943, but were noted too late to be included in the 1943 report.

### *Average Hourly Wage Rates*

Union bakery workers in 65 cities averaged 85.3 cents per hour on July 1, 1944 (table 1). Bakers producing Hebrew products had by far the highest average rate (\$1.49 per hour) for any of the individual branches of the industry. Almost two-thirds of the Hebrew baking was reported in New York City. Bread and cake hand shops (\$1.039) and specialized baking shops (\$1.027) had the next highest averages. Cracker and cooky shops had the lowest average, 66.9 cents.

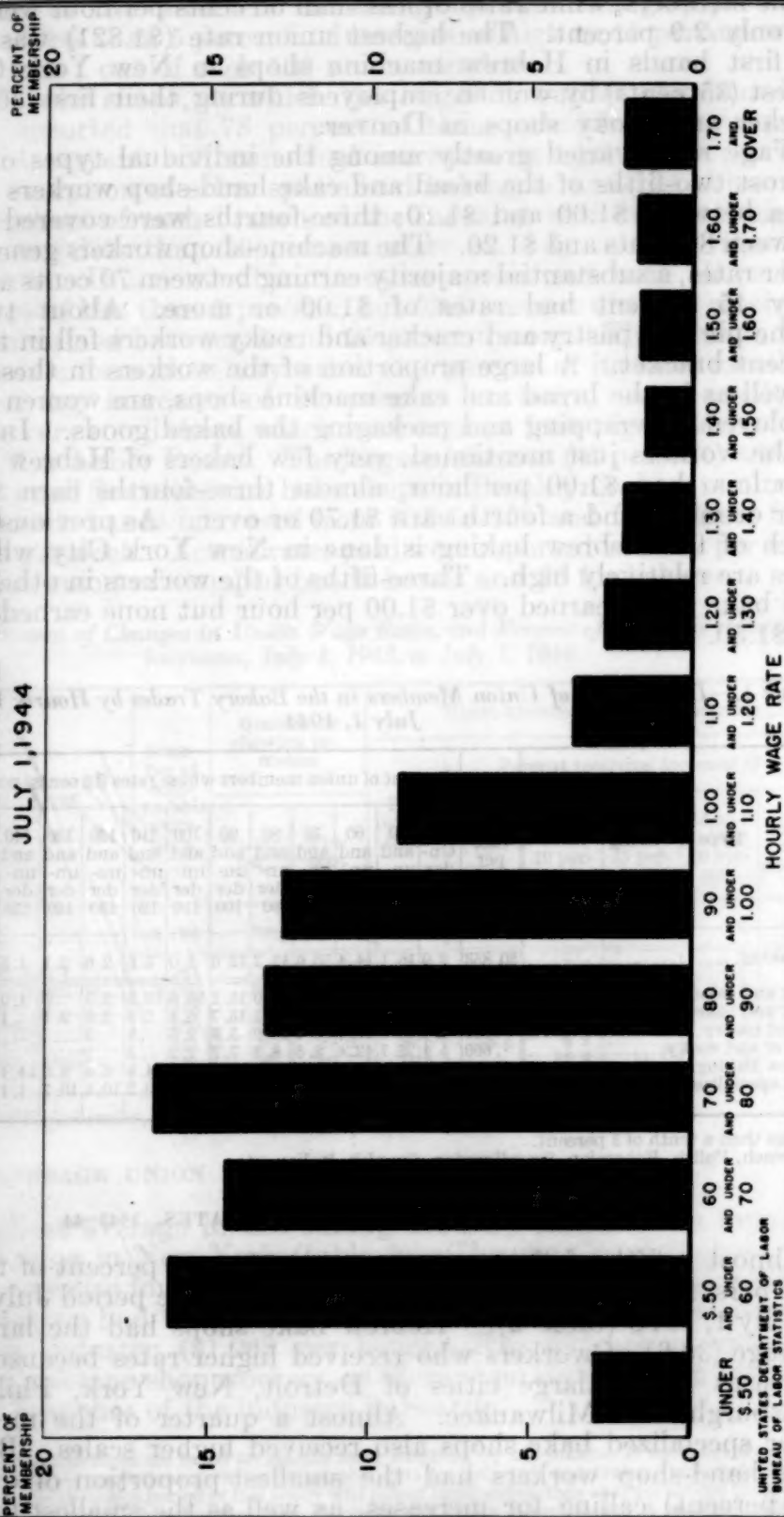
Almost half of the union members received rates between 50 and 80 cents per hour, and over a fourth earned between 80 cents and

<sup>2</sup> Prior to 1939 only union members engaged principally in bread baking were included. In 1939 and 1940 all types of baking and all occupations (except driving and other delivery work) covered by union agreements were added. Since that time plant-maintenance workers as well as drivers and other deliverymen have been excluded from the tabulations. Because of these changes in coverage the averages shown in reports through the years are not comparable. The percentage changes from year to year in wage rates and hours and the index numbers shown above, however, are based on comparable quotations only, and these, rather than the yearly averages, should be used to determine trends for the bakery trades.



# DISTRIBUTION OF UNION BAKERY WORKERS BY HOURLY WAGE RATES

JULY 1, 1944



\$1.00. Wage rates of \$1.00 or more were received by over 24 percent of the members, while rates of less than 50 cents per hour were quoted for only 2.9 percent. The highest union rate (\$1.821) was received by first hands in Hebrew machine shops in New York City, the lowest (35 cents) by women employees during their first 30 days in cracker and cooky shops in Denver.

Wage rates varied greatly among the individual types of baking. Almost two-fifths of the bread and cake hand-shop workers had base rates between \$1.00 and \$1.10; three-fourths were covered by rates between 80 cents and \$1.20. The machine-shop workers generally had lower rates, a substantial majority earning between 70 cents and \$1.00. Only 15 percent had rates of \$1.00 or more. About two-thirds of the pie and pastry and cracker and cooky workers fell in the 50- to 70-cent bracket. A large proportion of the workers in these groups, as well as in the bread and cake machine shops, are women and girls employed in wrapping and packaging the baked goods. In contrast to the workers just mentioned, very few bakers of Hebrew products earn less than \$1.00 per hour, almost three-fourths earn \$1.40 per hour or more, and a fourth earn \$1.70 or over. As previously stated, much of the Hebrew baking is done in New York City where most rates are relatively high. Three-fifths of the workers in other specialized bake shops earned over \$1.00 per hour but none earned as much as \$1.50.

TABLE 1.—*Distribution of Union Members in the Bakery Trades by Hourly Wage Rates, July 1, 1944*

Type of baking	Average rate per hour	Percent of union members whose rates (in cents per hour were—															
		Under 50	50 and under 60	60 and under 70	70 and under 80	80 and under 90	90 and under 100	100 and under 110	110 and under 120	120 and under 130	130 and under 140	140 and under 150	150 and under 160	160 and under 170	170 and over		
All baking.....	\$0.853	2.9	16.1	14.4	16.6	13.2	12.6	9.0	3.6	2.6	2.1	1.5	1.6	1.7	2.1		
Bread and cake, hand.....	1.039	.8	3.0	1.9	6.0	10.0	15.2	39.6	10.3	2.3	.5	1.9	2.7	2.0	3.8		
Bread and cake, machine.....	.807	2.8	16.1	8.9	24.8	17.5	15.7	6.4	2.6	2.9	2.1	.4	.5	.2	...		
Pie and pastry.....	.671	1.4	45.6	19.4	9.4	15.0	5.3	2.8	.8	.3	...	...	...	...	...		
Cracker and cooky.....	.669	5.4	25.1	42.4	8.5	8.3	7.7	2.2	.3	.1	...	...	...	...	...		
Hebrew baking.....	1.490	.5	.1	.7	.4	1.6	2.3	3.5	4.8	5.6	8.0	14.4	14.3	19.3	24.6		
Other specialized baking <sup>2</sup> .....	1.027	.4	2.0	4.3	11.6	7.6	14.1	17.5	20.2	10.5	10.7	1.1	...	...	...		

<sup>1</sup> Less than a tenth of 1 percent.

<sup>2</sup> French, Polish, Bohemian, Scandinavian, Spanish, Italian, etc.

#### CHANGES IN HOURLY WAGE RATES, 1943-44

Almost a fifth of the quotations, covering 14 percent of the union members, indicated increases in wages during the period July 1, 1943, to July 1, 1944 (table 2). Hebrew bake shops had the largest percentage (30.6) of workers who received higher rates because of wage increases in the large cities of Detroit, New York, Philadelphia, Pittsburgh, and Milwaukee. Almost a quarter of the members in other specialized bake shops also received higher scales. Bread and cake hand-shop workers had the smallest proportion of quotations (10 percent) calling for increases, as well as the smallest proportion of members receiving raises (9 percent).

Over three-fourths of the quotations reporting increases, covering the same proportion of union members receiving raises, showed changes

of less than 10 percent; 45 percent of these quotations, also covering 45 percent of the members benefiting by rate changes, provided increases of less than 5 percent. Increases as high as 15 percent went to fewer than 1 out of each 100 union members.

Hebrew bake shops, in which the largest group of members had increases, reported that 78 percent of these members had raises of less than 5 percent and none had increases as high as 10 percent. With the exception of other specialized baking, a substantial number of the members of each branch of the industry who obtained higher rates received less than 10 percent more on July 1, 1944, than on July 1, 1943. Union members in other specialized bake shops had no increases of less than 5 percent, but 93.5 percent of those receiving increases obtained between 5 and 15 percent more. This branch also had more members than any other (1.4 percent of its total membership) receiving increases of 20 percent or more, as a result of changes in very small shops which were exempt from regulations of the National War Labor Board. The largest increase (43 percent) was reported by small Scandinavian bake shops in Brooklyn, where minimum rates for bench hands increased from \$35 to \$50 and for helpers from \$28 to \$40 per week. Actual rates paid were reported to be \$8 per week above these union minima for bench hands and \$6 for helpers.

TABLE 2.—*Extent of Changes in Union Wage Rates, and Percent of Members Affected by Increases, July 1, 1943, to July 1, 1944*

Type of baking	Number of comparable quotations	Quotations showing in-creases		Percent of total	Union members receiving increases				
		Num-ber	Per-cent		Percent receiving increases of—				
					Under 5 per-cent	5 and under 10 per-cent	10 and under 15 per-cent	15 and under 20 per-cent	20 per-cent and over
All baking.....	3,683	702	19.1	14.1	6.3	4.6	2.3	0.5	0.4
Bread and cake, hand.....	243	25	10.3	9.0	.6	5.4	1.5	1.1	.4
Bread and cake, machine.....	2,160	363	16.8	13.3	7.2	3.5	1.8	.5	.3
Pie and pastry.....	148	40	27.0	10.2	4.5	3.4	2.3		
Cracker and cooky.....	900	219	24.3	11.8	2.4	5.4	3.1	.3	.6
Hebrew baking.....	111	30	27.0	30.6	23.7	6.9			
Other specialized baking <sup>1</sup> .....	121	25	20.7	24.8		11.4	11.8	.2	1.4

<sup>1</sup> French, Polish, Bohemian, Scandinavian, Spanish, Italian, etc.

#### AVERAGE UNION RATES AND RATE CHANGES BY CITY <sup>3</sup>

The highest average in the baking industry (\$1.593) was found in Hebrew baking in New York (table 3). The nine next highest city averages were also found in Hebrew baking. Bread and cake machine shops in Seattle had the highest average rate for all other branches of the baking industry (\$1.268 per hour). This average included all hand- and machine-shop workers, as there is no difference in rates for these two branches of the industry in Seattle.

<sup>3</sup> These percentage changes are based on specific rates weighted by the number of members working at each rate. Only those quotations showing comparable data for both 1943 and 1944 are included. Specific increases during the 12-month period of this study will reflect larger percentage changes among those classifications with comparatively lower scales; thus, if cracker and cookie bakers in city A increase their scale 10 cents per hour from 50 to 60 cents, an average increase of 20 percent is registered, while if the same increase raises the rate for cracker bakers in city B from 90 cents to \$1.00 per hour the percentage change is only 11.1 percent. For this reason those cities which have lower scales tend to show greater percentage increases than those which have higher scales.



Only 5 of 32 cities reported rate increases for bread and cake hand-shop workers. The largest increase in this branch of the industry (7 percent) was reported in South Bend. The next largest increase (5.2 percent) was reported in Peoria.

Charlotte, N. C., had the greatest percentage increase in the bread and cake machine-shop branch—11.5. Richmond, Va., also reported a substantial increase (7.8 percent) followed by Nashville, Tenn. (5.5 percent). Eighteen other cities reported increases in this branch, and 40 reported no change.

Pie and pastry workers in Baltimore had increases amounting to 10 percent over their 1943 scales. Appreciable increases were also reported in Toledo (8.7 percent) and Providence (8.4 percent).

In the cracker and cookie branch, Wichita, Kans., had the highest average increase (17 percent); the next highest (12.2 percent) was in Cleveland. Substantial increases were also reported in cracker shops in Toledo, St. Paul, and Birmingham. Specialized bake shops reported average increases of 11.2 percent for workers in Detroit and 10.6 percent for workers in Providence. Six of the 10 cities reporting shops in this branch had no change in scales between July 1, 1943, and July 1, 1944.

TABLE 3.—Average Hourly Rates for Union Bakery Workers, by City and Type of Baking, July 1, 1944

Type of baking and city	Average hourly rate	Percent of increase over 1943	Type of baking and city	Average hourly rate	Percent of increase over 1943
<b>Bread and cake, hand:</b>			<b>Bread and cake, machine—Con.</b>		
New York, N. Y.	\$1.221	1.0	Los Angeles, Calif.	\$0.939	0
Portland, Oreg.	1.076	0	Duluth, Minn.	.883	0
Cincinnati, Ohio.	1.065	0	Kansas City, Mo.	.883	0
San Francisco, Calif.	1.065	0	Houston, Tex.	.833	0
Denver, Colo.	1.053	0	St. Louis, Mo.	.833	0
<i>Average for all cities</i>	<i>1.039</i>		Phoenix, Ariz.	.828	0
Chicago, Ill.	1.012	0	Youngstown, Ohio.	.822	0
Rochester, N. Y.	.976	0	New York, N. Y.	.821	.1
St. Louis, Mo.	.971	0	Newark, N. J.	.817	0
Springfield, Mass.	.945	0	Oklahoma City, Okla.	.811	0
Cleveland, Ohio.	.943	4.7	Buffalo, N. Y.	.808	1.9
Toledo, Ohio.	.930	0	<i>Average for all cities</i>	<i>.807</i>	
Butte, Mont.	.915	0	Madison, Wis.	.796	0
South Bend, Ind.	.893	7.0	Peoria, Ill.	.796	0
Newark, N. J.	.887	0	Detroit, Mich.	.793	2.2
Los Angeles, Calif.	.876	0	South Bend, Ind.	.791	0
New Haven, Conn.	.863	0	Cincinnati, Ohio.	.786	0
Duluth, Minn.	.852	0	Milwaukee, Wis.	.786	3.1
Peoria, Ill.	.849	5.2	Chicago, Ill.	.785	1.9
Salt Lake City, Utah.	.847	0	Toledo, Ohio.	.784	0
St. Paul, Minn.	.822	0	Wichita, Kans.	.779	0
Des Moines, Iowa.	.802	0	Philadelphia, Pa.	.778	.1
Houston, Tex.	.783	0	Rock Island (Ill.) district <sup>1</sup>	.777	0
Youngstown, Ohio.	.766	0	Rochester, N. Y.	.773	0
Minneapolis, Minn.	.753	0	Worcester, Mass.	.770	0
Phoenix, Ariz.	.744	0	Dayton, Ohio.	.768	1.9
Manchester, N. H.	.724	0	Des Moines, Iowa.	.768	0
Grand Rapids, Mich.	.699	0	Pittsburgh, Pa.	.758	0
Boston, Mass.	.690	.3	Salt Lake City, Utah.	.757	0
Rock Island (Ill.) district <sup>1</sup>	.684	0	Springfield, Mass.	.755	.5
Scranton, Pa.	.633	0	Columbus, Ohio.	.754	.8
Tampa, Fla.	.604	0	Louisville, Ky.	.750	0
Indianapolis, Ind.	.555	0	Reading, Pa.	.748	0
<b>Bread and cake, machine:</b>			Cleveland, Ohio.	.738	1.4
Seattle, Wash.	\$1.268	.5	Indianapolis, Ind.	.737	.4
Portland, Oreg.	1.197	0	Providence, R. I.	.737	0
Washington, D. C.	1.069	0	Boston, Mass.	.734	1.1
Spokane, Wash.	1.032	0	St. Paul, Minn.	.729	0
Denver, Colo.	1.027	0	New Orleans, La.	.720	0
San Francisco, Calif.	1.012	0	New Haven, Conn.	.713	0
Butte, Mont.	.958	0	Minneapolis, Minn.	.700	0

See footnotes at end of table.

TABLE 3.—Average Hourly Rates for Union Bakery Workers, by City and Type of Baking, July 1, 1944—Continued

Type of baking and city	Average hourly rate	Percent of increase over 1943	Type of baking and city	Average hourly rate	Percent of increase over 1943
<b>Bread and cake, machine—Con.</b>			<b>Cracker and cooky—Con.</b>		
Omaha, Nebr.	\$0.695	0	Atlanta, Ga.	\$0.639	0
Dallas, Tex.	.693	2.9	Milwaukee, Wis.	.622	0
Binghamton, N. Y.	.667	.3	Des Moines, Iowa.	.621	0
Scranton, Pa.	.657	2.7	Portland, Oreg.	.620	0
Little Rock, Ark.	.649	0	Memphis, Tenn.	.618	0
Baltimore, Md.	.643	0	Minneapolis, Minn.	.611	2.6
Richmond, Va.	.635	7.8	Cleveland, Ohio.	.601	12.2
Charlotte, N. C.	.627	11.5	Wichita, Kans.	.566	17.0
Memphis, Tenn.	.621	0	St. Paul, Minn.	.547	6.6
Tampa, Fla.	.601	0	Denver, Colo.	.539	0
Birmingham, Ala.	.591	2.6	Birmingham, Ala.	.513	6.2
Atlanta, Ga.	.583	2.4	Nashville, Tenn.	.507	0
Nashville, Tenn.	.567	5.5	Scranton, Pa.	.435	0
Jacksonville, Fla.	.555	0	<b>Hebrew baking:</b>		
<b>Pie and pastry:</b>			New York, N. Y.	1.593	.8
Rock Island (Ill.) district <sup>1</sup>	.907	0	Los Angeles, Calif.	1.516	0
New York, N. Y.	.867	.2	<b>Average for all cities</b>	1.490	
Boston, Mass.	.778	2.5	Detroit, Mich.	1.456	2.7
Los Angeles, Calif.	.717	0	Newark, N. J.	1.444	0
St. Paul, Minn.	.714	0	Boston, Mass.	1.390	0
Cleveland, Ohio.	.677	1.5	Chicago, Ill.	1.356	0
Philadelphia, Pa.	.677	0	New Haven, Conn.	1.301	0
<b>Average for all cities</b>	.671		Rochester, N. Y.	1.291	0
Detroit, Mich.	.651	0	Philadelphia, Pa.	1.289	4.3
Toledo, Ohio.	.623	8.7	Cleveland, Ohio.	1.283	0
Portland, Oreg.	.620	0	Baltimore, Md.	1.205	4.3
Buffalo, N. Y.	.607	0	Worcester, Mass.	1.186	0
Chicago, Ill.	.605	0	Springfield, Mass.	1.173	0
South Bend, Ind.	.594	5.3	Pittsburgh, Pa.	1.086	2.0
Providence, R. I.	.594	8.4	Providence, R. I.	1.082	0
Baltimore, Md.	.584	10.0	Denver, Colo.	1.037	0
Duluth, Minn.	.508	0	Milwaukee, Wis.	1.019	4.3
<b>Cracker and cooky:</b>			St. Louis, Mo.	.914	0
San Francisco, Calif.	.776	0	Minneapolis, Minn.	.849	0
Duluth, Minn.	.727	0	Youngstown, Ohio.	.839	0
Spokane, Wash.	.727	2.8	<b>Other specialized baking: <sup>2</sup></b>		
New York, N. Y.	.710	0	Detroit, Mich.	1.256	11.2
Dayton, Ohio.	.708	0	Chicago, Ill.	1.113	.6
Boston, Mass.	.702	0	Buffalo, N. Y.	1.083	0
Detroit, Mich.	.691	0	San Francisco, Calif.	1.064	0
Philadelphia, Pa.	.590	0	New York, N. Y.	1.039	3.3
Los Angeles, Calif.	.686	2.1	<b>Average for all cities</b>	1.027	
<b>Average for all cities</b>	.669		Cleveland, Ohio.	.944	0
Seattle, Wash.	.668	3.2	Philadelphia, Pa.	.834	0
Toledo, Ohio.	.666	8.1	Los Angeles, Calif.	.777	0
Chicago, Ill.	.653	0	Providence, R. I.	.728	10.6
Kansas City, Mo.	.653	0	Tampa, Fla.	.570	0
Buffalo, N. Y.	.650	.1			

<sup>1</sup> Includes Rock Island and Moline, Ill., and Davenport, Iowa.<sup>2</sup> Includes hand shops—not separable.<sup>3</sup> French, Polish, Bohemian, Scandinavian, Spanish, Italian, etc.<sup>4</sup> Includes Hebrew bakeries—not separable.

## AVERAGE WAGE RATES BY SIZE OF CITY AND REGION

Size of city is a significant, even though not a dominant, factor in average wage rates in the baking industry. Cities in group I (over 1,000,000 population) reported an average 7 cents per hour higher than those in group II (500,000 to 1,000,000); cities in group II had an average 7.9 cents higher than those in group III (250,000 to 500,000); and cities in group III averaged 2.4 cents per hour more than those in group IV (100,000 to 250,000). (See table 4.) However, the average for group V (40,000 to 100,000) was 1.6 cents per hour higher than that for group IV, and direct variation by city size held for only 2 of the 6 individual branches of the industry. The higher average for group V cities was due partly to the absence of organized

pie and pastry and cracker and cookie shops in these cities. Low wage scales in these branches of the industry tend to hold down the averages for the larger cities, where they are widely organized. In addition there are large numbers of unskilled women workers in the larger cities, where mass-production methods are common.

Average wage rates in the North and Pacific region are substantially higher than those in the South and Southwest. There are 11 possible comparisons of average wages between the North and Pacific and the South and Southwest regions.<sup>4</sup> In 10 of these comparisons the North and Pacific region has substantially higher averages than the South and Southwest. For all bakery trades combined, the averages in the North and Pacific region are 15.7 cents higher than those of the South and Southwest in group III, 15 cents in group IV, and 8.5 cents in group V cities. Bread and cake hand shops in group IV cities showed the largest difference in favor of the North and Pacific over the South and Southwest region (21.3 cents per hour).

TABLE 4.—Average Hourly Wage Rates in Cities of Specified Population Groups<sup>1</sup>

Trade	Group I <sup>2</sup>	Group II <sup>2</sup>	Group III			Group IV			Group V		
	North and Pacific	North and Pacific	All regions	North and Pacific	South and Southwest	All regions	North and Pacific	South and Southwest	All regions	North and Pacific	South and Southwest
All baking.....	\$0.917	\$0.847	\$0.768	\$0.813	\$0.656	\$0.744	\$0.771	\$0.621	\$0.760	\$0.799	\$0.714
Bread and cake, hand.....	1.124	.971	.921	.928	.783	.810	.817	.604	.803	.839	.744
Bread and cake, machine.....	.815	.819	.817	.868	.679	.748	.775	.637	.753	.792	.711
Pie and pastry.....	.677	.674	.....	.608	.....	.....	.687	.....	.....	.....	.....
Cracker and cookie.....	.699	.708	.608	.604	.616	.615	.646	.507	.....	.....	.....
Hebrew baking.....	1.547	1.247	.....	1.297	.....	.....	1.140	.....	.....	.....	.....
Other specialized baking <sup>3</sup> .....	1.040	1.023	.....	.728	.....	.....	.570	.....	.....	.....	.....

<sup>1</sup> Group I, over 1,000,000 population; group II, 500,000 to 1,000,000; group III, 250,000 to 500,000; group IV, 100,000 to 250,000; group V, 40,000 to 100,000.

<sup>2</sup> No city of this size in the South or Southwest.

<sup>3</sup> French, Polish, Bohemian, Scandinavian, Spanish, Italian, etc.

### Straight-Time Weekly Hours

On July 1, 1944, union bakery workers in the 65 cities had straight-time hours averaging 41 per week (table 5). Cracker and cookie workers had the shortest hours (40 per week), and bread and cake hand-shop workers the longest (44.8). However, Hebrew and other specialized shops had average straight-time weeks almost as long (44.6 and 44.5, respectively).

Over three-fourths of the bakery workers included in the study had straight-time workweeks of 40 hours. The next largest group (8 percent) worked regular weeks of 48 hours. Substantial numbers of members also worked 45 or 42 hours per week (5.9 and 4.4 percent, respectively). The shortest straight-time hours (35 per week) were recorded for production workers in Bohemian bakeries in New York; the longest (54 hours per week), for bakers of Italian bread in Brooklyn.

Among the individual branches of the industry, the bread and cake hand shops and other specialized shops reported almost half of their

<sup>4</sup> Comparisons are limited to cities in group III, IV, and V, as there is no city in the South or Southwest with a population of 500,000 or more.



members on a 48-hour straight-time week, and a fourth on the 40-hour week. Three-fifths of the Hebrew shop workers had a 45-hour week. All of the cracker and cooky workers and over 90 percent of the bread and cake machine-shop and pie and pastry workers had 40-hour straight-time weeks.

Practically all of the bakery workers (99.3 percent) operated under the same straight-time hour scales in 1944 as in 1943. A few hour increases were reported for Hebrew and other specialized baking shops, where prior to the war very short weekly hours had been the rule because of "share the work" plans. Bread and cake hand and machine shops reported a few straight-time hour decreases.

TABLE 5.—*Distribution of Union Members in the Bakery Trades, by Straight-Time Hours per Week, July 1, 1944*

Weekly hours	Percent of union members with specified hours per week—						
	All baking	Bread and cake, hand	Bread and cake, machine	Pie and pastry	Cracker and cooky	Hebrew baking	Other special- ized baking <sup>1</sup>
35 hours.....	.1						3.7
36 hours.....	1.5		2.7				
37¼ hours.....	.1						3.1
38 hours.....	.8		1.5				
40 hours.....	77.8	25.5	90.1	90.9	100.0	8.5	26.3
42 hours.....	4.4	7.9	3.7			15.1	14.3
43 hours.....	.2			6.7			
44 hours.....	.9	5.4	.7	.7		.2	
45 hours.....	5.9	14.2	.2			60.4	1.9
48 hours.....	8.0	47.0	1.1	1.7		14.1	45.3
51 hours.....	.1					1.7	
54 hours.....	.2						5.4
Total.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Average weekly hours.....	41.0	44.8	40.1	40.4	40.0	44.6	44.5

<sup>1</sup> French, Polish, Bohemian, Scandinavian, Spanish, Italian, etc.

### Overtime

Most (96.7 percent) of the bakery workers were covered by an initial overtime rate of time and a half (table 6). Other overtime rates included only 1.2 percent of the members, and 2.1 percent did not receive any extra pay other than regular rates for work beyond the regular hours.

TABLE 6.—*Overtime Rates Provided in Union Bakery Agreements, July 1, 1944*

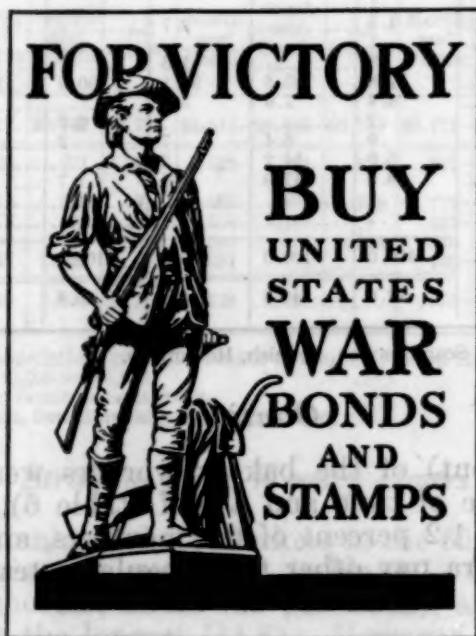
Type of baking	Number of quotations showing initial overtime rates			Percent of union members having initial overtime rates		
	Time and a half	No overtime rate specified	Other overtime rates	Time and a half	No overtime rate specified	Other overtime rates
All baking.....	3,849	34	26	96.7	2.1	1.2
Bread and cake, hand.....	232	11	3	89.6	8.5	1.9
Bread and cake, machine.....	2,339	9	6	98.6	1.0	.4
Pie and pastry.....	145	4		99.3	.7	
Cracker and cooky.....	922			100.0		
Hebrew baking.....	90	10	11	82.7	9.7	7.6
Other specialized baking <sup>1</sup> .....	121		6	93.7		6.3

<sup>1</sup> French, Polish, Bohemian, Scandinavian, Spanish, Italian, etc.

### *Vacations and Holidays*

**Vacations.**—Practically all (98 percent) of the union bakery workers included in this survey were covered by agreements providing for annual vacations with pay. Two-thirds of these members received 1 week's paid vacation after 1 year of service. Over 40 percent of those receiving 1 week after 1 year of service also received a second week after 5 years, and 12 percent received the second week after only 2 years of service. Agreements providing 2 weeks' vacation after 1 year of service, covered about 8 percent of the members.

**Paid holidays.**—Over two-thirds of the organized bakery workers received pay for a limited number of holidays not worked: Over half of these workers received pay while shops were closed for the six national holidays, and about 20 percent received pay for one or more additional local or religious holidays. Almost 15 percent received five holidays with pay. The remainder were paid for from one to four holidays per year. In most cases, if members were required to work on these holidays they received time and a half or double the regular rate.



## Union Wage Rates of City Streetcar and Bus Operators, July 1, 1944

### *Summary*

UNION wage rates of streetcar and bus operators averaged 92.3 cents per hour in 69 cities on July 1, 1944. Average hourly wage rates advanced only eight-tenths of 1 percent over July 1, 1943. However, the War Labor Board approved additional increases in the form of bonuses and reductions in periods of service necessary to reach maximum rates, which benefited a substantial number of union members.

About two-thirds of the union members operated under agreements providing a limit on straight-time daily or weekly hours. The overtime rate was usually time and a half. All of the union members included in the study were working under agreements which provided annual paid vacations, usually of 1 or 2 week's duration and with varying service requirements.

### *Scope and Method of Study*

This is one of a series of annual surveys of union scales for streetcar and bus operators started by the Bureau of Labor Statistics in 1921. The current survey includes 75 cities in 40 States and the District of Columbia, but effective union scales for this group of workers were reported in only 69 of these cities. Information was collected as of July 1, 1944, and scales in negotiation or before the National War Labor Board at the time the Bureau's representatives called were further checked before the data were tabulated so that as far as possible increases retroactive to July 1, 1944, could be included in this report.

The basic information was obtained by field representatives of the Bureau from union officials in each of the cities, and reported scales were checked against signed union agreements wherever possible. When sufficient information was not available at the union offices, regarding the distribution of members at the various rates appearing in the agreements, this was obtained from company officials. The current study includes 408 quotations covering 84,242 union members. The rates obtained were for union members employed on local streetcar, subway, elevated, and bus lines, and also those employed on city-surburban lines which furnish local city service. Employees of intercity or interstate car and bus lines were not included.

### *Trend of Hourly Wage Rates*

Hourly wage rates for streetcar and bus operators advanced only eight-tenths of 1 percent during the period July 1, 1943, to July 1, 1944, and increased about 21 percent from 1939, the base year of the index (table 1). Average wages increased gradually from 1934 until 1941; but during the 2 subsequent years, they rose more rapidly.



Although there was only a slight increase in average basic scales between July 1, 1943, and July 1, 1944, a number of adjustments in rates were made by reducing the time intervals between automatic wage increases under the graduated scales effective in most cities. In some cases, rates previously earned after 1 year of service may now be earned after 6 months; and in one case, rates previously effective after 5 years are now effective after 1 year of service. Time intervals between minimum and maximum rates were reduced in 15 contracts and a large majority of union members were reported to be earning the maximum rates.

TABLE 1.—*Indexes of Hourly Wage Rates of Union Streetcar and Bus Operators, 1929-44*

Year	Index (1939=100)	Year	Index (1939=100)	Year	Index (1939=100)
1929.....	91.6	1935.....	91.4	1941.....	104.8
1930.....	92.5	1936.....	92.1	1942.....	112.5
1931.....	92.5	1937.....	96.4	1943.....	119.8
1932.....	90.6	1938.....	99.2	1944.....	120.8
1933.....	(1)	1939.....	100.0		
1934.....	88.0	1940.....	101.1		

<sup>1</sup> Not available.

Earnings also have been increased by the introduction of bonus plans. On July 1, 1944, bonus plans were effective in Binghamton, Boston, Cincinnati, Indianapolis, Madison, St. Louis, Seattle, and Washington, D. C. The bonus plan is a relatively new development in the industry and has received the approval of the National War Labor Board. It is intended to compensate for the increased work load of the operators as a result of wartime conditions and is usually based on the increase of revenue-miles per vehicle over January 1941 or a month in 1941 corresponding to the current pay month. Binghamton was the only city included in the study that reported a bonus plan prior to July 1943. In Madison the bonus is not included in the union agreement, but is voluntary on the part of the employer and is paid in the form of war bonds. Bonus plans are now pending in several cities in addition to the ones listed above, and in most cases are reported to produce from 3½ to 6 cents per hour in addition to base rates.

Neither these bonus payments or the adjustments in periods of service to reach maximum rates are reflected in the index or the averages appearing in this report.

### *Hourly Wage Rates*

On July 1, 1944, the average wage rate for streetcar and bus operators was 92.3 cents per hour. Almost half of the union members had rates between 90 cents and \$1.00, and about three-fourths were in the 80 cents to \$1.00 group. Only 8.7 percent of the members had rates of less than 80 cents, but 18.3 percent had rates of \$1.00 or more, as shown by the following percentage distribution.

Rate per hour:

	Percent of union members
Under 70 cents	0.4
70 and under 80 cents	8.3
80 and under 90 cents	25.3
90 cents and under \$1.00	47.7
\$1.00 and under \$1.10	11.4
\$1.10 and under \$1.20	6.8
\$1.20 and over	.1
Total	100.0

Average rate per hour \$0.923

Rates for streetcar and bus operators are usually graduated on the basis of length of service with the company, but the time between rate steps varies widely from city to city. In some cases intervals are as short as 3 months while in others they are as long as a year. The time intervals required for intermediate steps between the starting and maximum rates varies from 6 months in some cities to 4 years in others. The difference between entrance and maximum rates<sup>1</sup> also varies widely among companies and cities, in some cases being as much as 30 cents per hour; the most common difference, however, is 5 or 10 cents.

Rates for operators of 1-man cars and 1-man busses are higher than the rates for either operators or conductors on 2-man cars in each of the 18 cities where 2-man streetcars are still operating. The maximum rate for operators of 1-man cars and busses is generally about 10 cents per hour above that for 2-man cars.

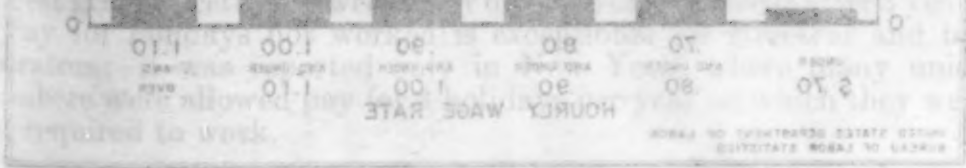
Entrance rates for 1-man car and bus operators ranged from 64 cents per hour in Nashville to \$1.05 per hour in Detroit; maximum hourly rates, from \$0.745 in Binghamton to \$1.15 in Detroit. Operators of "owl runs" (those in the late evening and early morning hours) in Detroit received 10 cents per hour in addition to the maximum rate. A few other cities also reported higher rates for union members operating cars or busses on these "owl runs."

Hourly entrance rates for 2-man car operators ranged from 66.5 cents in Boston to 95.0 cents in Detroit and maximum rates from 75 cents in Omaha to \$1.05 in Detroit.

*Changes in Wage Rates Between 1943 and 1944*

More than a fourth of the quotations, including 18.3 percent of the union members, provided rate increases during the period July 1, 1943, to July 1, 1944. Increases of 2 but less than 8 percent covered over three-fourths of the members getting raises, half of these being between 2 and 4 percent. Advances of more than 8 percent were reported for only 2 of every 10 members getting raises or only 3.9 percent of the total membership.

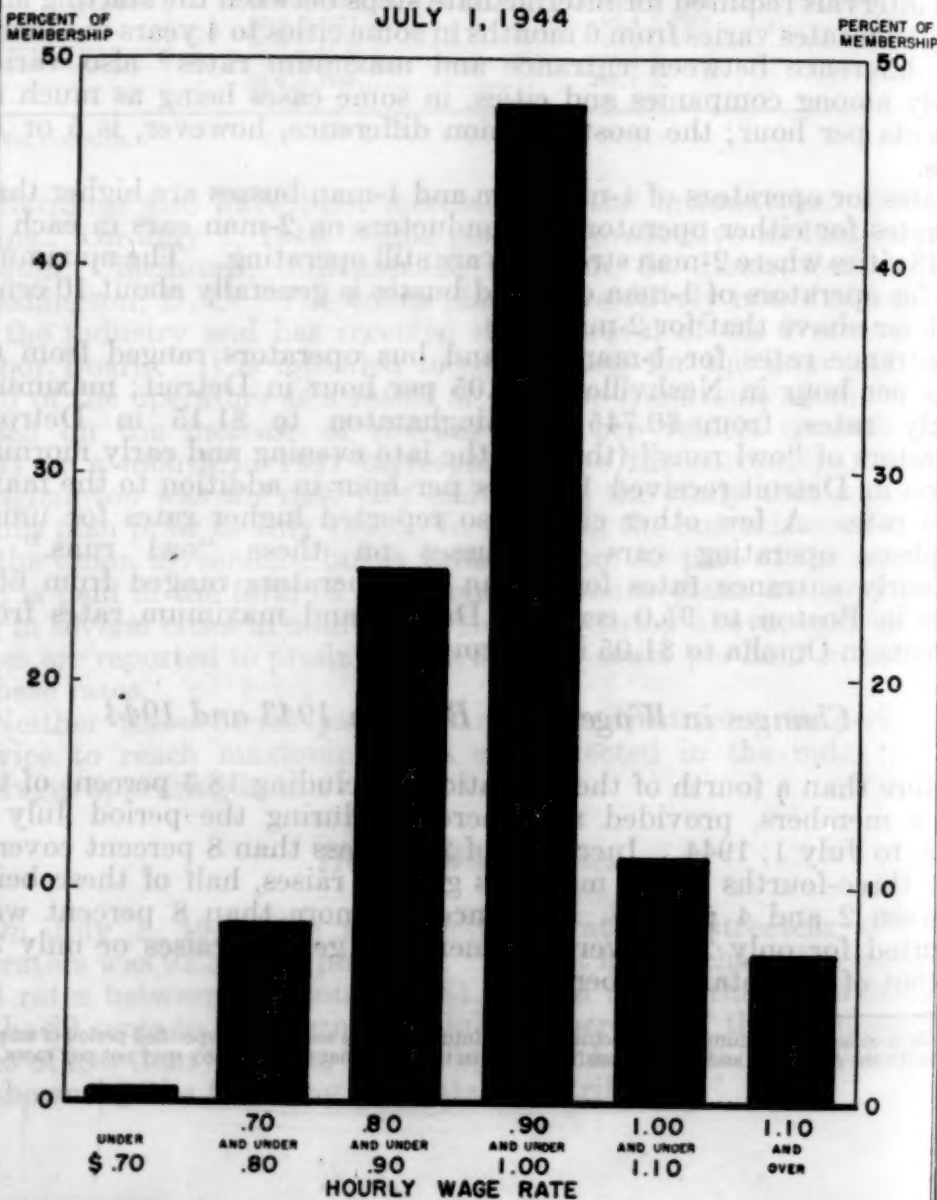
<sup>1</sup> This so-called "maximum rate" is actually the minimum union scale after a specified period of employment with the company, and is not a maximum rate in the sense that the company may not pay more.



	Number of comparable quotations	Percent of members affected
No changes reported.....	280	81.7
Increases reported:		
Under 2 percent.....	3	.3
2 and under 4 percent.....	22	7.5
4 and under 6 percent.....	14	2.5
6 and under 8 percent.....	35	4.1
8 and under 10 percent.....	16	1.8
10 and under 12 percent.....	9	1.6
12 and under 14 percent.....	4	.3
14 percent and over.....	7	.2
Total.....	390	100.0

### DISTRIBUTION OF UNION WAGE RATES OF CITY STREETCAR AND BUS OPERATORS

JULY 1, 1944





### *Weekly Hours and Overtime Rates*

Ordinarily hours for streetcar and bus operators are limited only to the length of the daily run, a run consisting of a definite number of trips over a given route. These runs may vary from 40 to 60 hours per week, depending on location, length of route, traffic conditions, and other factors. Many runs are "swing runs," that is, runs which are operated during the morning and afternoon rush hours. The operators on these swing runs are required to lay off for 4 or 5 hours in the middle of each day.

Early union attempts to regulate hours were limited to demanding that on a certain percentage of runs the operators be guaranteed 40 or 48 hours' pay, and that there be as few swing runs as possible. This was accomplished by requiring that a large percentage of runs be "straight runs," and that the spread of hours on "swing runs" be limited. Thus, some agreements provide for overtime pay after a spread of 12 or 13 hours on swing runs. As an operator's take-home pay is dependent on the run, the unions have provided in their agreements for periodic selection of runs on a seniority basis. Swing runs are ordinarily operated by men low on the seniority list or by "extra men." During the present war emergency many swing runs are operated by women or men who are employed full time at other occupations.

During recent years the payment of overtime rates after a specified number of hours, regardless of the length of the run, has become more prevalent than in past years. A third of the union members included in this study have a limit on straight-time weekly hours, regardless of the length of the run, their hours ranging from 40 to 58 per week. Over a fifth of the members get overtime pay if they work more than 44 hours per week, and a few members receive overtime after a 40-hour week. A limit on straight-time hours of from 8 to 10 per day covered a third of the members. The remainder are still covered by agreements that do not call for overtime pay except for extra trips or work done after completing the regular run.

More than 83 percent of the union members received time and a half if they worked beyond the limited hours discussed above, or if they were required to operate an extra trip or run. About 6 percent received some other overtime rate, and reports covering 11 percent of the union workers did not specify any overtime rate.

### *Paid Vacations and Holidays*

Paid vacations were provided in all the union agreements for the 69 cities included in the survey. Two-fifths of the union members received 2 weeks' paid vacation after 1 year of service. An additional 27 percent received at least 1 week's vacation after 1 year; 20 percent of this group received 2 weeks after 2 years' service, and 36 percent received 2 weeks after 5 years. About a third of the members were covered by agreements with a variety of vacation provisions, the largest group receiving 1 week after 6 months and 2 weeks after 3 years.

Pay for holidays not worked is exceptional for streetcar and bus operators; it was reported only in New York, where many union members were allowed pay for 4 holidays per year on which they were not required to work.

## Rates Paid in Each City

The union rates per hour in effect on July 1, 1944, and July 1, 1943, by city, are shown in table 2.

TABLE 2.—Union Wage Rates of Streetcar and Bus Operators, July 1, 1944, and July 1, 1943, by Cities

City and classification	Rates of wages per hour		City and classification	Rates of wages per hour	
	July 1, 1944	July 1, 1943		July 1, 1944	July 1, 1943
<b>Atlanta, Ga.</b>			<b>Chicago, Ill.—Continued</b>		
2-man cars and feeder busses:			Elevated railway:		
First 8 months.....	\$0.720	\$0.720	Motormen:		
9-16 months.....	.770	.770	First 3 months.....	\$0.897	\$0.897
After 16 months.....	.800	.800	4-12 months.....	.906	.906
1-man cars, busses, and trolley coaches:			After 1 year.....	.951	.951
First 8 months.....	.790	.790	Conductors.....	.906	.906
9-16 months.....	.840	.840	Guards, regular.....	.888	.888
After 16 months.....	.870	.870	Guards, extra:		
<b>Binghamton, N. Y.<sup>1</sup></b>			First 3 months.....	.860	.860
Busses:			4-12 months.....	.870	.870
First 3 months.....	.665	.665	After 1 year.....	.879	.879
4-9 months.....	.715	.715	<b>Cincinnati, Ohio<sup>1</sup></b>		
After 9 months.....	.745	.745	2-man cars:		
<b>Birmingham, Ala.</b>			First 3 months.....	.800	.800
2-man cars:			4-12 months.....	.830	.830
First year.....	.745	.685	After 1 year.....	.850	.850
Second year.....	.765	.705	1-man cars and busses:		
After 2 years.....	.795	.735	First 3 months.....	.870	.870
1-man cars and busses:			4-12 months.....	.900	.900
First year.....	.820	.760	After 1 year.....	.920	.920
Second year.....	.840	.780	<b>Cleveland, Ohio</b>		
After 2 years.....	.870	.810	2-man cars:		
<b>Boston, Mass.<sup>1</sup></b>			First 3 months.....	.920	.890
2-man cars:			4-12 months.....	.950	.920
First 3 months.....	.665	.650	After 1 year.....	.970	.940
4-12 months.....	.755	.740	Busses:		
After 1 year.....	.915	.900	First 3 months.....	1.015	.960
1-man cars and busses:			4-12 months.....	1.045	.990
First 3 months.....	.765	.750	After 1 year.....	1.065	1.010
4-12 months.....	.855	.840	<b>Columbus, Ohio</b>		
After 1 year.....	1.015	1.000	1-man cars, busses, and trolley coaches:		
Rapid Transit Lines:			First 3 months.....	.810	.810
Motormen.....	.965	.950	4-12 months.....	.840	.840
Guards:			After 1 year.....	.860	.860
First 3 months.....	.665	.650	<b>Dallas, Tex.</b>		
4-12 months.....	.755	.740	1-man cars and busses:		
After 1 year.....	.915	.900	First year.....	.770	.770
<b>Butte, Mont.</b>			1-2 years.....	.800	.800
Busses.....	.920	.920	After 2 years.....	.830	.830
<b>Charleston, S. C.</b>			<b>Dayton, Ohio</b>		
Busses:			Agreement A:		
First 3 months.....	.760	.760	1-man cars and busses:		
4-12 months.....	.780	.780	First 3 months.....	.750	.750
After 1 year.....	.800	.800	4-12 months.....	.800	.800
<b>Chicago, Ill.</b>			After 1 year.....	.850	.850
2-man cars:			Agreement B:		
First 3 months.....	.890	.890	Busses:		
4-12 months.....	.920	.920	First 3 months.....	.820	.820
After 1 year.....	.940	.940	4-12 months.....	.840	.840
Night cars.....	.960	.960	After 1 year.....	.860	.860
1-man cars and busses:					
Day.....	1.020	1.020			
Night.....	1.040	1.040			

<sup>1</sup> Plus bonus.

TABLE 2.—Union Wage Rates of Streetcar and Bus Operators, July 1, 1944, and July 1, 1943, by Cities—Continued

City and classification	Rates of wages per hour		City and classification	Rates of wages per hour	
	July 1, 1944	July 1, 1943		July 1, 1944	July 1, 1943
<b>Denver, Colo.</b>			<b>Little Rock, Ark.</b>		
2-man cars:			1-man cars and busses:		
After 2 years.....	\$0.850	\$0.850	First 6 months.....	\$0.700	\$0.600
1-man cars and busses:			7-12 months.....	.750	.630
First 3 months.....	.860	.860	13-18 months.....	.780	
4-12 months.....	.870	.870	After 18 months.....	.800	
13-18 months.....	.880	.880			
19-24 months.....	.890	.890			
After 2 years.....	.900	.900			
<b>Des Moines, Iowa</b>			<b>Los Angeles, Calif.</b>		
1-man cars and busses:			Los Angeles Railway Co.:		
First 3 months.....	.735	.735	2-man cars:		
4-9 months.....	.765	.765	First 6 months.....	.810	.810
After 9 months.....	.810	.810	After 6 months.....	.850	.850
<b>Detroit, Mich.</b>			1-man cars and busses:		
2-man cars:			First 6 months.....	.910	.910
First 6 months.....	.950	.950	After 6 months.....	.950	.950
7-12 months.....	.990	.990	Pacific Electric Co.:		
After 1 year.....	1.050	1.050	2-man cars:		
Night cars.....	1.150	1.150	First 6 months.....	.810	.810
1-man cars and busses:			After 6 months.....	.850	.850
First 6 months.....	1.050	1.050	2-man single track cars:		
7-12 months.....	1.090	1.090	First 6 months.....	.860	.860
After 1 year.....	1.150	1.150	After 6 months.....	.900	.900
Night busses.....	1.250	1.250	1-man cars and busses:		
<b>Duluth, Minn.</b>			First 6 months.....	.910	.910
Busses:			After 6 months.....	.950	.950
First year.....	.740	.740			
After 1 year.....	.800				
<b>El Paso, Tex.</b>			<b>Louisville, Ky.</b>		
1-man cars and busses.....	.800	.800	1-man cars and busses:		
<b>Erie, Pa.</b>			First 3 months.....	.710	.710
Busses:			4-12 months.....	.790	.790
First 6 months.....	.800	.800	13-24 months.....	.840	.840
7-12 months.....	.870	.870	After 2 years.....	.860	.860
After 1 year.....	.900	.900			
<b>Grand Rapids, Mich.</b>			<b>Madison, Wis.<sup>1</sup></b>		
Busses.....	.875	.800	Busses:		
<b>Indianapolis, Ind.<sup>1</sup></b>			First 6 months.....	.680	.680
1-man cars and busses:			7-12 months.....	.710	.710
First year.....	.830	.780	13-18 months.....	.730	.730
1-2 years.....	.850	.800	After 18 months.....	.750	.750
After 2 years.....	.900	.850			
<b>Jackson, Miss.</b>			<b>Manchester, N. H.</b>		
Busses:			Busses:		
First 6 months.....	.730	.730	First 3 months.....	.780	.780
After 6 months.....	.780	.780	4-12 months.....	.840	.840
<b>Jacksonville, Fla.</b>			After 1 year.....	.900	.900
Busses:			<b>Memphis, Tenn.</b>		
First year.....	.760	.760	1-man cars and busses:		
1-2 years.....	.780	.780	First year.....	.770	.750
After 2 years.....	.810	.810	Second year.....	.820	.800
<b>Kansas City, Mo.</b>			After 2 years.....	.870	.850
1-man cars and busses:			<b>Milwaukee, Wis.</b>		
First 3 months.....	.825	.825	2-man cars:		
4-12 months.....	.843	.843	First year.....	.810	.810
13-24 months.....	.855	.855	Second year.....	.830	.830
After 2 years.....	.880	.880	After 2 years.....	.850	.850
			1-man cars and busses:		
			First year.....	.860	.860
			Second year.....	.880	.880
			After 2 years.....	.900	.900
			<b>Minneapolis, Minn.</b>		
			2-man cars:		
			First year.....	.790	.790
			Second year.....	.820	.820
			After 2 years.....	.850	.850

<sup>1</sup> Plus bonus.



TABLE 2.—Union Wage Rates of Streetcar and Bus Operators, July 1, 1944, and July 1, 1943, by Cities—Continued

City and classification	Rates of wages per hour		City and classification	Rates of wages per hour	
	July 1, 1944	July 1, 1943		July 1, 1944	July 1, 1943
<i>Minneapolis, Minn.—Continued</i>			<i>New York, N. Y.—Continued</i>		
1-man cars and busses:			Surface cars—Continued.		
First year.....	\$0.880	\$0.880	Third Avenue Transit System—		
Second year.....	.910	.910	Continued.		
After 2 years.....	.950	.950	19-21 months.....	\$0.780	\$0.730
<i>Mobile, Ala.</i>			22-24 months.....	.800	.750
Busses:			Third year.....	.850	.800
First 6 months.....	.750	.750	Fourth year.....	.900	.810
After 6 months.....	.800	.800	Fifth year.....	.950	.880
<i>Nashville, Tenn.</i>			Brooklyn-Queens Transit Lines:		
Busses:			First year.....	.750	.750
First 3 months.....	.640	.640	Second year.....	.800	.800
4-12 months.....	.680	.680	Third year.....	.850	.850
13-18 months.....	.700	.700	Fourth year.....	.900	.900
19-24 months.....	.740	.740	Fifth year.....	.950	.950
After 2 years.....	.770	.770	Queensboro Bridge Railway and		
<i>Newark, N. J.</i>			Steinway Omnibus Co.....	.954	.880
1-man cars and busses:			Busses:		
First 3 months.....	.860	.860	Avenue B and East Broadway		
4-12 months.....	.880	.880	Transit Co.:		
After 1 year.....	.900	.900	First 3 months.....	.680	
Ironbound Transportation Co.:			4-6 months.....	.700	
Busses:			7-12 months.....	.750	
First 6 months.....	.700	.600	Second year.....	.800	
7-12 months.....	.750		Third year.....	.850	
After 1 year.....	.800		After 3 years.....	.900	
<i>New Haven, Conn.</i>			Brooklyn Bus Division:		
1-man cars and busses:			First year.....	.750	.750
First 3 months.....	.900	.900	Second year.....	.800	.800
4-12 months.....	.930	.930	Third year.....	.850	.850
After 1 year.....	.970	.970	Fourth year.....	.900	.900
<i>New Orleans, La.</i>			After 4 years.....	.950	.950
2-man cars:			Comprehensive and East Side		
First 6 months.....	.720	.690	Omnibus Corp.:		
7-12 months.....	.750	.720	First 3 months.....	.680	.680
After 1 year.....	.780	.750	4-12 months.....	.753	.753
Busses:			Second year.....	.800	.800
First 6 months.....	.770	.740	Third year.....	.835	.835
7-12 months.....	.800	.770	Fourth year.....	.870	.870
After 1 year.....	.830	.800	After 4 years.....	.960	.960
<i>New York, N. Y.</i>			Fifth Avenue Coach Co.:		
Subways:			Drivers:		
Road motormen:			First year.....	.890	.850
First year.....	1.050	1.050	Second year.....	.900	.860
After 1 year.....	1.100	1.100	Third year.....	.930	.890
Yard motormen:			Fourth year.....	.940	.900
First year.....	.950	.950	After 4 years.....	.950	.910
After 1 year.....	1.000	1.000	Conductors:		
Conductors:			First year.....	.820	.780
First position:			Second year.....	.830	.790
First year.....	.800	.800	Third year.....	.860	.820
After 1 year.....	.850	.850	Fourth year.....	.870	.830
Second position:			After 4 years.....	.880	.840
First year.....	.700	.700	Green Lines:		
After 1 year.....	.730	.730	First 6 months.....	.700	.700
Surface cars:			7-12 months.....	.750	.750
Third Avenue Transit System:			Second year.....	.800	.800
First 3 months.....	.650	.600	Third year.....	.850	.850
4-6 months.....	.670	.620	After 3 years.....	.900	.900
7-9 months.....	.690	.640	Jamaica Busses, Inc.:		
10-12 months.....	.720	.670	First year.....	.740	.740
13-15 months.....	.740	.690	Second year.....	.800	.800
16-18 months.....	.760	.710	Third year.....	.840	.840
			After 3 years.....	.900	.900
			Manhattan and Queens Lines:		
			First 6 months.....	.740	.740
			7-12 months.....	.780	.780
			13-30 months.....	.860	.860
			After 30 months.....	.900	.900
			New York Omnibus and sub-		
			sidiary companies:		
			First 6 months.....	.710	.710
			7-12 months.....	.800	.800
			Second year.....	.860	.860
			Third year.....	.920	.920

TABLE 2.—Union Wage Rates of Streetcar and Bus Operators, July 1, 1944, and July 1, 1943, by Cities—Continued

City and classification	Rates of wages per hour		City and classification	Rates of wages per hour	
	July 1, 1944	July 1, 1943		July 1, 1944	July 1, 1943
<b>New York, N. Y.—Continued</b>			<b>Omaha, Nebr.—Continued</b>		
Busses—Continued.			1-man cars and busses:		
New York Omnibus and subsidiary companies—Con.			First 6 months	\$0.730	\$0.693
Fourth year	\$0.940	\$0.940	7-12 months	.760	.714
After 4 years	1.000	1.000	After 12 months	.800	.735
North Shore Bus Co.:			<b>Peoria, Ill.</b>		
First year	.720	.720	1-man cars and busses:		
Second year	.790	.790	First year	.810	.810
Third year	.870	.870	Second year	.830	.830
After 3 years	.950	.950	After 2 years	.850	.850
Queens-Nassau Transit Lines:			<b>Philadelphia, Pa.</b>		
First year	.738	.738	Subway, elevated, and high-speed lines:		
Second year	.780	.780	Motormen:		
Third year	.800	.800	First 6 months	.850	.850
After 3 years	.950	.950	7-12 months	.875	.875
Schenck Transportation Co.:			13-18 months	.900	.900
First 12 months	.710	.710	19-24 months	.925	.925
13-30 months	.820	.820	After 2 years	.950	.950
After 30 months	.920	.920	Conductors:		
Staten Island Coach Co.:			First 6 months	.770	.770
First 3 months	.750	.730	7-12 months	.795	.795
4-6 months	.780	.755	13-18 months	.820	.820
7-9 months	.810	.780	19-24 months	.845	.845
10-12 months	.840	.805	After 2 years	.870	.870
13-18 months	.870	.830	2-man cars:		
19-24 months	.910	.865	First 6 months	.770	.770
After 2 years	.950	.900	7-12 months	.795	.795
Steinway Omnibus and Queensboro Bridge Railway:			13-18 months	.820	.820
First year	.720		19-24 months	.845	.845
Second year	.795		After 2 years	.870	.870
Third year	.875		1-man cars and busses:		
After 3 years	.950		First 6 months	.850	.850
Third Avenue Railway System:			7-12 months	.875	.875
First 3 months	.650	.600	13-18 months	.900	.900
4-6 months	.670	.620	19-24 months	.925	.925
7-9 months	.690	.640	After 2 years	.950	.950
10-12 months	.720	.670	<b>Phoenix, Ariz.</b>		
13-15 months	.740	.690	1-man cars and busses:		
16-18 months	.760	.710	First 6 months	.850	.850
19-21 months	.780	.730	7-12 months	.950	.950
22-24 months	.800	.750	13-18 months	1.000	1.000
Third year	.850	.800	After 18 months	1.050	1.050
Fourth year	.900	.810	<b>Pittsburgh, Pa.</b>		
After 4 years	.950	.900	1-man cars and busses:		
Tri-Boro Coach Corp.:			First 3 months	.955	.955
First year	.680	.680	4-12 months	1.045	1.045
Second year	.736	.736	After 1 year	1.100	1.100
Third year	.793	.793	<b>Portland, Maine</b>		
Fourth year	.838	.838	Busses:		
After 4 years	.900	.900	First year	.900	.870
<b>Norfolk, Va.</b>			After 1 year	.930	.900
1-man cars and busses:			<b>Portland, Oreg.</b>		
First 3 months	.700	.700	1-man cars and busses:		
4-12 months	.750	.750	First 3 months	1.000	
After 1 year	.800	.800	4-6 months	1.025	
<b>Oklahoma City, Okla.</b>			7-12 months	1.050	
1-man cars and busses:			After 1 year	1.080	
First 6 months	.720	.710	<b>Providence, R. I.</b>		
7-12 months	.750	.740	1-man cars and busses:		
13-24 months	.790	.780	First 3 months	.920	.920
After 2 years	.850	.830	4-12 months	.950	.950
<b>Omaha, Nebr.</b>			After 1 year	.970	.970
2-man cars:					
First 6 months	.680	.641			
7-12 months	.710	.661			
After 1 year	.750	.684			

TABLE 2.—Union Wage Rates of Streetcar and Bus Operators, July 1, 1944, and July 1, 1943, by Cities—Continued

City and classification	Rates of wages per hour		City and classification	Rates of wages per hour	
	July 1, 1944	July 1, 1943		July 1, 1944	July 1, 1943
<i>Reading, Pa.</i>			<i>San Francisco, Calif.—Continued</i>		
2-man cars.....	\$0.700	\$0.700	California Cable Railroad:		
1-man cars and busses.....	.800	.800	Gripmen and conductors:		
<i>Richmond, Va.</i>			First 6 months.....	\$0.850	\$0.800
1-man cars and busses:			7-12 months.....	.875	.825
First 3 months.....	.700	.700	13-18 months.....	.900	.850
4-12 months.....	.750	.750	After 18 months.....	.925	.875
After 1 year.....	.800	.800	<i>Scranton, Pa.</i>		
<i>Rochester, N. Y.</i>			1-man cars and busses:		
2-man subway cars.....	.870	.870	First 3 months.....	.740	.740
Busses:			4-12 months.....	.790	.790
First 3 months.....	.860	.800	After 1 year.....	.820	.820
4-12 months.....	.880	.880	<i>Seattle, Wash.<sup>1</sup></i>		
After 1 year.....	.900	.900	Busses:		
<i>Rock Island (Ill.) district<sup>2</sup></i>			First 6 months.....	1.000	1.000
Busses:			After 6 months.....	1.050	1.050
First 6 months.....	.860	.790	<i>South Bend, Ind.</i>		
7-12 months.....	.880	.810	Busses:		
After 1 year.....	.900	.830	First 6 months.....	.850	
<i>St. Louis, Mo.</i>			7-12 months.....	.875	
2-man cars: <sup>1</sup>			After 1 year.....	.900	
First 6 months.....	.730	.730	<i>Spokane, Wash.</i>		
7-12 months.....	.780	.780	Busses:		
13-18 months.....	.830	.830	First 6 months.....	.850	.800
After 18 months.....	.880	.880	7-12 months.....	.900	.850
1-man cars and busses: <sup>1</sup>			After 1 year.....	.950	.900
First 6 months.....	.800	.800	<i>Springfield, Mass.</i>		
7-12 months.....	.850	.850	Busses:		
13-18 months.....	.900	.900	First 3 months.....	.870	.870
After 18 months.....	.950	.950	4-12 months.....	.925	.925
<i>St. Louis County Bus Co., Inc.</i>			After 1 year.....	.970	.970
Busses:			<i>Tampa, Fla.</i>		
First 6 months.....	.775	.675	Busses:		
7-12 months.....	.800	.700	First 6 months.....	.670	.670
13-18 months.....	.825	.725	After 6 months.....	.750	.750
After 18 months.....	.850	.750	<i>Toledo, Ohio</i>		
<i>St. Paul, Minn.</i>			1-man cars and busses:		
(See Minneapolis, Minn.)			First 6 months.....	.880	.880
<i>Salt Lake City, Utah</i>			7-12 months.....	.900	.900
1-man cars and busses:			After 1 year.....	.930	.930
First year.....	.820	.790	<i>Washington, D. C.<sup>1</sup></i>		
After 1 year.....	.900	.870	2-man cars:		
<i>San Antonio, Tex.</i>			First 3 months.....	.770	.770
Busses.....	.860	.860	4-12 months.....	.810	.810
<i>San Francisco, Calif.</i>			After 1 year.....	.850	.850
Market Street Railway:			1-man cars and busses:		
2-man cars:			First 3 months.....	.870	.870
First 6 months.....	.850	.850	4-12 months.....	.910	.910
7-12 months.....	.875	.875	After 1 year.....	.950	.950
13-18 months.....	.900	.900	<i>Worcester, Mass.</i>		
After 18 months.....	.925	.925	1-man cars and busses:		
Busses:			First 3 months.....	.870	.870
First 6 months.....	.900	.900	4-12 months.....	.920	.920
7-12 months.....	.925	.925	After 1 year.....	.970	.970
13-18 months.....	.950	.950	<i>York, Pa.</i>		
After 18 months.....	.975	.975	Busses:		
<i>Municipal Railway:</i>			First 6 months.....	.720	.720
2-man cars:			7-12 months.....	.760	.760
Motormen and conductors.....	.975	.875	After 1 year.....	.800	.800
Platform men:			<i>Youngstown, Ohio</i>		
First 6 months.....	.900	.800	Busses:		
7-12 months.....	.925	.825	First year.....	.900	.900
After 1 year.....	.950	.850	After 1 year.....	.950	.950
Busses.....	1.025	.925			

<sup>1</sup> Plus bonus.<sup>2</sup> Includes Davenport, Iowa, and Moline and Rock Island, Ill.



Trends in Urban Wages Rates, April–October 1944<sup>1</sup>*Summary*

URBAN wage rates in manufacturing rose 2.2 percent during the 6-month period, April to October 1944, thus bringing the increase for the period since January 1941 to approximately 30 percent. Gross hourly earnings rose 51 percent during this period and gross weekly earnings 76 percent. The increase in urban factory wage rates amounted to eight-tenths of 1 percent per month during the 21 months prior to the Wage Stabilization Act of October 1942, but was reduced to six-tenths of 1 percent in the first year of wage stabilization and to three-tenths of 1 percent during the second year.

The greatest increases during the interval from April to October 1944 were found in the apparel and leather industry groups, in which incentive payments are relatively important, and in the Middle Atlantic States. General wage changes during this period accounted for an increase of about four-tenths of 1 percent; the increase in earnings during the entire period since January 1941 caused by such changes is about 16 percent.

The rise in urban wage rates in the nonmanufacturing industries studied amounted to 4.1 percent between April and October 1944. The greatest increases were found in the low-wage retail and service industries, in which wage rates rose by 5.6 and 5.4 percent, respectively. The Southeast showed the largest increase in nonmanufacturing wages, rates increasing 6.5 percent in this region. During the 1½-year period, April 1943–October 1944, wage rates in nonmanufacturing both in the Southeast and in the Southwest rose more than 20 percent.

*Nature of Study*

The trend of basic wage rates, which in normal times may be inferred from the movement of hourly earnings, has been obscured in recent years by drastic wartime changes in hours of work, the relative importance of war and civilian industries, the prevalence of premium pay for late shifts, the composition of the labor force, and other factors. Since control of wage rates has been the objective of the wage-stabilization program, and because of the importance of wage rates in studies of labor cost and national income, the Bureau of Labor Statistics has recently developed an index of wage rates to supplement its long-established measures of hourly and weekly earnings. In addition to providing a dependable measure of trends in wage rates, the new index permits separate study of wage movements in major cities and in the various economic regions. The index covers manufacturing industry and selected branches of nonmanufacturing.

The wage-rate index is based on statistics gathered semiannually from about 6,600 identical establishments, by trained field representatives of the Bureau, who visit the cooperating firms and transcribe wage rates for key occupations directly from pay rolls and other basic records. The data are obtained almost exclusively from areas center-

<sup>1</sup> Prepared in the Division of Wage Analysis by Harry Ober and Lily Mary David, with the assistance of Margaret L. Hammond. For a more complete description of the Bureau's new measure of urban wage trends see *Wartime Wage Movements and Urban Wage Rate Changes*, in *Monthly Labor Review*, October 1944.

ing in cities of 25,000 population or more and therefore the measure applies only to urban areas. The information collected consists of hourly wage rates (average hourly earnings in the case of incentive workers) exclusive of all premium payments for overtime and for work on second or third shifts. By use of constant weights the influence of each occupation (and each sex within each occupation), industry, and area is kept the same in all periods.

The index reflects primarily the effect of general wage changes (such as a 10-cent increase across the board, or a 5-percent increase in the base rates of incentive workers) and individual wage adjustments, such as merit increases or automatic promotions within a rate range. Changes in incentive earnings resulting from changes in output also affect the index, as do certain other factors that are not ordinarily important.<sup>2</sup> The first results of the index cover the period from April 1943 to April 1944.<sup>3</sup> The material presented in the present article extends these findings to October 1944.

### *Urban Wage-Rate Changes in Manufacturing Industries*

Urban wage rates in manufacturing industries increased 2.2 percent between April and October 1944. This rise was slightly larger than the 1.9-percent increase recorded in the preceding 6-month period but was smaller than in the corresponding months (April–October) of 1943, when urban wage rates rose 3.8 percent.

During the second full year of wage stabilization, ending in October 1944, the increase in urban wage rates amounted to three-tenths of 1 percent per month. This may be contrasted with an average increase of six-tenths of 1 percent monthly during the first year of wage stabilization, and of eight-tenths of 1 percent during the period from January 1941 to the passage of the Wage Stabilization Act (table 1).

TABLE 1.—*Comparative Summary of Changes in Earnings and Wage Rates in Manufacturing, January 1941–October 1944*

Period	Num-ber of months	Percent of increase				Percent of increase per month <sup>1</sup>			
		Gross week-ly earnings	Gross hourly earnings	Ad-justed hourly earnings <sup>2</sup>	Urban wage rates	Gross week-ly earnings	Gross hourly earnings	Ad-justed hourly earnings <sup>2</sup>	Urban wage rates
Total period (January 1941–October 1944)	45	76.2	51.0	36.1	<sup>3</sup> 30.2	1.3	0.9	0.7	<sup>3</sup> 0.6
Prestabilization period (January 1941–October 1942)	21	46.0	30.7	20.7	<sup>3</sup> 17.0	1.8	1.3	.9	<sup>3</sup> .8
Stabilization period (October 1942–October 1944)	24	20.7	15.5	12.8	<sup>3</sup> 11.3	.8	.6	.5	<sup>3</sup> .4
October 1942–April 1943	6	9.2	5.7	3.3	<sup>3</sup> 3.0	1.5	.9	.5	<sup>3</sup> .5
April 1943–October 1943	6	5.6	4.7	3.5	3.8	.9	.8	.6	.6
October 1943–April 1944	6	1.6	2.4	3.1	1.9	.3	.4	.5	.3
April 1944–October 1944	6	3.0	1.9	2.3	2.2	.5	.3	.4	.4

<sup>1</sup> In obtaining these monthly averages it has been assumed that the increase for each month is computed as a percentage of the rate at the beginning of that month. In most cases, therefore, the monthly figures are slightly lower than those computed by dividing the percentage for an entire period by the number of months in the period.

<sup>2</sup> Hourly earnings excluding premium payments for overtime, and with industries weighted in proportion to their 1939 employment.

<sup>3</sup> Partly estimated.

<sup>4</sup> See Wartime Wage Movements and Urban Wage-Rate Changes, in Monthly Labor Review, October 1944 (pp. 684–704), especially table 1.

<sup>5</sup> By means of additional material and estimates, the figures for manufacturing industry have been extended back to January 1941 for the country as a whole and for broad regions.

Over the entire period from January 1941 to October 1944, urban wage rates rose 30.2 percent, at a rate of six-tenths of 1 percent a month. Gross weekly earnings rose 76.2 percent during this period, and gross hourly earnings increased 51.0 percent. "Adjusted" hourly earnings, corrected for premium overtime payments and inter-industry employment shifts, rose 36.1 percent.

#### FACTORS RESPONSIBLE FOR WAGE-RATE CHANGES

Most of the increase in manufacturing wage rates between April and October 1944 was the result of merit increases and other individual wage adjustments. General wage changes affecting all or a substantial proportion of the workers in an establishment constituted a relatively minor factor, as they have since the advent of wage stabilization; they amounted to four-tenths of 1 percent, or about a fifth of the entire increase in urban wage rates. The rise during the entire period since January 1941 resulting from general wage increases amounted to about 16 percent, of which the major part (about 13 percent) took place before passage of the Stabilization Act in October 1942. A sixth of the establishments surveyed reported general wage changes during the period from April to October 1944. Such wage changes were, however, relatively greater in certain industries, notably, chemicals and tobacco. They were also relatively important in some individual cities, for example, Minneapolis and St. Louis.

Increased incentive earnings were partly responsible for the rise in wage rates, but still remained a relatively minor factor. Rates for time workers increased 1.8 percent, as compared with 2.2 percent for time and incentive workers combined. Incentive workers, it should be noted, comprise about a third of all manufacturing employees. Substantial increases in incentive straight-time earnings in some establishments were partly offset by decreases in others. Apparently, simplification of incentive tasks and standardization of production without changes in rates contributed to the rise in incentive earnings, as did actual changes in piece rates. Part of the increase in earnings in the boot and shoe industry, for example, was due to introduction of simpler styles and to a steadier flow of work without reduction of piece rates. Substitutions of incentive for hourly methods of payment were fairly numerous, but their net effect on the index was apparently negligible.

#### VARIATIONS AMONG INDUSTRY GROUPS

There was a relatively wide variation among manufacturing industry groups in the extent to which urban wage rates rose between April and October 1944. Whereas three of the industry groups showed changes of less than 1 percent, two groups rose more than 4 percent. The two industries showing the greatest increases, apparel and leather, were both characterized by incentive-wage payments. The industries most directly connected with war production tended to show smaller increases during this period than did other industries; wage rates in basic iron and steel and shipbuilding, for example, both changed less than 1 percent during this period. The slight decrease



for the former industry can be traced to decreased incentive earnings in a number of centers; the data do not reflect the effects of the "Basic Steel" award of the National War Labor Board, which was made after the period covered by the index.<sup>4</sup>

Examination of table 2 indicates that, on the whole, those industries with the smallest changes in urban wage rates during the 6-month period, April to October 1944, had also experienced relatively small increases during the preceding year. Over the entire period from April 1943 to October 1944, the increase in urban wage rates varied among industry groups from less than 1 percent to over 13 percent. Four of the groups showed increases equal to or above the 8.1-percent average for all manufacturing-industry groups combined. The apparel and leather industries, which showed the greatest increases during the 6-month period, also had the largest increases (about 13 percent) over the entire period.

TABLE 2.—*Percent of Increase in Urban Wage Rates in Manufacturing, by Industry Group, April 1943 to October 1944*

Industry group	Percent of increase from—			
	April 1943 to October 1943	October 1943 to April 1944	April 1944 to October 1944	April 1943 to October 1944
All industries.....	3.8	1.9	2.2	8.1
Food and kindred products.....	3.2	1.1	1.9	6.3
Tobacco manufactures.....	1.1	3.1	1.7	6.1
Textile-mill products.....	2.7	2.7	2.3	8.0
Apparel and allied products.....	1.2	5.0	7.6	12.8
Lumber and timber basic products.....	( <sup>1</sup> )	( <sup>2</sup> )	( <sup>3</sup> )	( <sup>4</sup> )
Furniture and finished lumber products.....	3.4	1.8	2.9	8.4
Paper and allied products.....	5.2	.2	1.7	7.2
Printing, publishing, and allied industries.....	3.1	1.6	2.5	7.3
Chemicals and allied products.....	2.4	1.3	1.2	4.9
Products of petroleum and coal.....	1.3	( <sup>2</sup> )	.3	( <sup>4</sup> )
Rubber products.....	2.0	2.5	1.4	6.0
Leather and leather products.....	4.5	4.0	4.2	13.3
Stone, clay, and glass products.....	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>3</sup> )	( <sup>4</sup> )
Basic iron and steel.....	( <sup>1</sup> )	.5	1.4	( <sup>4</sup> )
Shipbuilding.....	.4	.4	.5	1.3
Metalworking (except basic iron and steel and ship- building).....	5.4	1.9	2.0	9.5

<sup>1</sup> Decrease.

<sup>2</sup> Representation inadequate to show percent of increase.

<sup>3</sup> Less than a tenth of 1 percent.

<sup>4</sup> Data not available for April 1943.

#### INTERREGIONAL AND INTERCITY VARIATIONS

The rise in urban wage rates between April and October 1944 varied from 1.0 percent in the Pacific Coast States to 3.5 percent in the Middle Atlantic States. Only one region (the Mountain States) in addition to the influential Middle Atlantic region showed increases in excess of the national average. Part of the rise in the Middle Atlantic States is attributable to the large increase in earnings in the apparel industries.

<sup>4</sup> The award was issued by the National War Labor Board on November 25, and approved by the Director of Economic Stabilization on December 30, 1944. (For summary, see Monthly Labor Review, January 1945, p. 41.)

TABLE 3.—Percent of Increase in Urban Wage Rates in Manufacturing, by Economic Region and Selected Area, April 1943 to October 1944

Economic region and urban area <sup>1</sup>	Percent of increase from—			
	April 1943 to October 1943	October 1943 to April 1944	April 1944 to October 1944	April 1943 to October 1944
All regions.....	3.8	1.9	2.2	8.1
New England.....	3.2	1.3	2.1	6.7
Boston.....			1.1	8.1
Providence.....			2.3	5.6
Middle Atlantic.....	2.6	2.9	3.5	9.2
Buffalo.....			.5	12.3
Newark.....			2.8	11.4
New York.....			6.4	12.3
Philadelphia.....			2.3	6.0
Pittsburgh.....			2.2	5.1
Border States.....	1.6	2.0	1.4	5.1
Baltimore.....			1.6	4.5
Louisville.....			3.3	8.8
Southeast.....	3.6	2.2	2.0	8.0
Atlanta.....			2.7	7.9
Birmingham.....			3.4	6.3
Memphis.....			2.0	8.5
Great Lakes.....	5.1	1.3	1.7	8.3
Chicago.....			3.0	8.1
Cleveland.....			2.7	9.4
Detroit.....			.3	6.5
Indianapolis.....			1.4	6.0
Milwaukee.....			3.1	6.2
Minneapolis.....			1.2	4.9
Middle West.....	4.8	3.3	1.1	9.4
Kansas City.....			1.7	4.9
St. Louis.....			1.0	11.8
Southwest.....	4.2	1.2	1.5	7.1
Dallas.....			1.7	11.0
Houston.....			.8	2.6
New Orleans.....			1.0	8.9
Mountain.....	3.0	2.3	2.7	8.2
Denver.....			1.8	9.5
Pacific.....	4.6	1.3	1.0	7.0
Los Angeles.....			1.3	9.6
Portland.....			.8	1.2
San Francisco.....			.8	2.1
Seattle.....			.4	3.7

<sup>1</sup> The data are based on observations in 69 areas. For the names of other areas within the various regions, see Monthly Labor Review, October 1944 (p. 690).

Among the 28 large cities for which individual data are available, urban wage rates rose by less than 1 percent in six cities and by 3 percent or more in five. The largest increases were reported in New York, Birmingham, Louisville, Milwaukee, Chicago, and Newark. The importance of the apparel industries in New York City explains much of the increase in wages recorded for that city. The cities in which the smallest increases were found were mainly shipbuilding centers and were greatly influenced by the relatively stable wage structure of the shipbuilding industry.

There was apparently no correlation between the extent of the increases in wage rates in the cities or regions studied and those reported during the preceding year. Moreover there was no significant relationship between wage levels and the extent of change, in the case of either individual cities or regions.

Although individual data are shown in table 3 only for the largest cities studied, a comparison of the increases recorded for all cities of 100,000 or more with those for all smaller areas studied indicates but slight variation in the rate of increase by size of city. The increase in the larger cities amounted to 2.4 percent, that for cities of less than 100,000 to 2.1 percent.

Although there was appreciable interregional variation in movements of manufacturing wage rates during the most recent 6-month period, there was a good deal of consistency in the increase during the entire 1½-year period (April 1943–October 1944) for which urban wage-rate data are available by region. Four of the nine regions showed increases that were within 1 percentage point of the United States average, and all but one showed increases within 2 percentage points of that average.

### *Urban Wage-Rate Changes in Nonmanufacturing*

Urban wage rates in the group of nonmanufacturing industries studied rose by 4.1 percent between April and October 1944. Under the "substandard" policy of the National War Labor Board, permitting increases in wage rates up to 50 cents an hour without Board approval, these industries were able to raise wage rates almost twice as fast as did the higher-wage manufacturing industries. The increase in nonmanufacturing wage rates during this interval was significantly higher than during the preceding 6 months, but amounted to less than two-thirds of the gain recorded during the period from April 1943 to October 1943 (table 4). The rise over the entire year and a half (April 1943 to October 1944) amounted to 13.8 percent, or seven-tenths of 1 percent a month.

TABLE 4.—Percent of Increase in Urban Wage Rates in Selected Nonmanufacturing Industries, by Industry Group, April 1943 to October 1944

Industry group <sup>1</sup>	Percent of increase from—			
	April 1943 to October 1943	October 1943 to April 1944	April 1944 to October 1944	April 1943 to October 1944
Total, selected industries.....	6.4	2.7	4.1	13.8
Wholesale trade.....	2.5	2.0	2.9	7.6
Retail trade.....	9.2	3.0	5.6	18.8
Finance, insurance, and real estate.....	3.9	3.1	1.6	8.8
Local utilities.....	1.5	1.1	.3	2.9
Service trades.....	6.4	2.4	5.4	14.8

<sup>1</sup> The specific industries selected to represent these groups in the measurement of wage-rate changes were as follows: *Wholesale trade*—general-line wholesale groceries; *retail trade*—department stores, clothing stores, and groceries; *finance, insurance, and real estate*—banks and savings and loan associations; *local utilities*—electric light and power or gas companies; *service trades*—hotels, power laundries, and auto-repair shops.

### FACTORS RESPONSIBLE FOR URBAN WAGE-RATE CHANGES

As in the case of manufacturing industries, the major part of the change in nonmanufacturing wages during the 6 months (April to October 1944) may be attributed to merit and other individual increases in rates of pay. General wage changes were relatively as important as in manufacturing, amounting to about eight-tenths of 1 percent. This relationship appears to be unusual; normally, wage changes are less important as a method of wage adjustment in nonmanufacturing than in manufacturing industry. General wage changes were reported about as frequently during this period as



during the preceding 6 months; about one nonmanufacturing establishment in eight reported a general wage change in this interval.

As in earlier periods, increased incentive payments also were relatively unimportant factors in the rise in nonmanufacturing wage rates; in retail trade, where incentive payment is very prevalent, rates of time workers rose by 4.9 percent, compared with the 5.6-percent rise for time and incentive workers combined.

#### VARIATIONS AMONG INDUSTRY GROUPS

Among the five nonmanufacturing-industry groups studied, the greatest increases were recorded in the relatively low-wage retail trade and service industries, in each of which wage rates rose by more than 5 percent. These were also the industries that had experienced the greatest increase in wage rates during the preceding year; the rise in the year and a half between April 1943 and October 1944 amounted to 18.8 percent for retail trade and 14.8 percent for the service industries. These industry groups were apparently affected more than the other nonmanufacturing industries studied by wage increases permitted under "substandard" rulings of the War Labor Board; the rise in retail trade is also explained in part by increased incentive earnings. The increases in retail trade were about 8 percent in three regions, including the relatively high-wage Great Lakes and Pacific Coast regions. Five regions showed increases of 6.5 percent or more in these service trades.

Percent of change, April 1944-  
October 1944 in—

Retail trade      Service industries

New England.....	2.9	3.1
Middle Atlantic.....	4.5	2.6
Border States.....	1.9	6.5
Southeast.....	8.5	6.7
Great Lakes.....	7.6	7.3
Middle West.....	2.1	6.7
Southwest.....	4.2	7.4
Mountain.....	6.4	4.6
Pacific.....	7.8	5.5

#### INTERREGIONAL AND INTERCITY VARIATIONS

The rise in the combined nonmanufacturing industries varied among the nine economic regions from 2.4 percent in the Border States to 6.5 percent in the Southeast. Over the 1½-year period the increase in both southern regions exceeded 20 percent (table 5).

Among individual large cities, Dallas, which during the preceding year led all cities in the amount of increase, showed the smallest change in nonmanufacturing wage rates. Houston and New Orleans had also previously shown large wage-rate increases, but reported relatively small gains from April to October 1944. Some of the largest increases were recorded in the relatively high-wage Pacific Coast cities, which had experienced little change during the preceding year. Over the entire period (April 1943 to October 1944), all six of the large Southern cities studied reported increases of more than 20 percent, while only one other city—Detroit—showed as large a rise.

TABLE 5.—Percent of Increase in Urban Wage Rates in Selected Nonmanufacturing Industries, by Economic Region and Selected Area, April 1943 to October 1944

Economic region and urban area <sup>1</sup>	Percent of increase from—			
	April 1943 to October 1943	October 1943 to April 1944	April 1944 to October 1944	April 1943 to October 1944
All regions.....	6.4	2.7	4.1	13.8
New England.....	3.3	2.3	3.5	9.4
Boston.....			3.3	9.3
Providence.....			1.3	3.7
Middle Atlantic.....	5.6	2.3	3.0	11.3
Buffalo.....			2.0	6.4
Newark.....			3.8	16.9
New York.....			3.2	10.9
Philadelphia.....			1.9	15.0
Pittsburgh.....			2.1	8.0
Border States.....	6.5	4.6	2.4	14.1
Baltimore.....			2.7	12.5
Louisville.....			2.6	18.8
Southeast.....	9.3	4.1	6.5	21.2
Atlanta.....			6.3	20.9
Birmingham.....			8.8	21.8
Memphis.....			9.3	23.8
Great Lakes.....	8.2	2.2	5.8	17.0
Chicago.....			6.3	18.8
Cleveland.....			3.5	15.1
Detroit.....			5.5	22.5
Indianapolis.....			5.1	14.3
Milwaukee.....			4.6	16.2
Minneapolis.....			7.6	15.7
Middle West.....	8.6	3.0	2.6	14.8
Kansas City.....			1.1	12.9
St. Louis.....			3.9	15.3
Southwest.....	11.4	5.6	3.5	21.7
Dallas.....			.8	22.8
Houston.....			3.2	20.1
New Orleans.....			1.7	21.3
Mountain.....	4.0	2.7	4.9	12.1
Denver.....			3.3	8.6
Pacific.....	2.7	1.8	4.3	9.0
Los Angeles.....			3.0	9.6
Portland.....			6.6	11.2
San Francisco.....			5.9	9.5
Seattle.....			4.0	5.6

<sup>1</sup> The data are based on observations in 69 areas. For the names of other areas within the various regions, see Monthly Labor Review (October 1944, p. 690).

Comparison of data for cities of 100,000 or more with those for the smaller cities studied indicates that the increase in wage rates was slightly greater in the large than in the small cities. During the preceding year the increase was about the same in cities of both size groups. The following figures present weighted averages by size of central city for the 6-month period ending in October 1944.

Size of central city:	Number of areas	Average increase (percent)
Under 100,000.....	28	3.8
100,000 and over.....	41	4.1

## Trend of Factory Earnings, 1939 to November 1944

THE published average earnings of factory workers are summarized in the accompanying table for selected months from January 1939 to November 1944.<sup>1</sup> The earnings shown in this table are on a gross basis (i. e., before deductions for social security, income and victory taxes, bond purchases, etc.).

Earnings of Factory Workers in Selected Months, 1939 to November 1944

Month and year	Average weekly earnings			Average hourly earnings			Estimated straight-time average hourly earnings <sup>1</sup>			Estimated straight-time average hourly earnings weighted by January 1939 employment <sup>2</sup>		
	All manufacturing	Durable goods	Non-durable goods	All manufacturing	Durable goods	Non-durable goods	All manufacturing	Durable goods	Non-durable goods	All manufacturing	Durable goods	Non-durable goods
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
1939: Jan. ....	\$23.19	\$25.33	\$21.57	\$0.632	\$0.696	\$0.583	\$0.623	\$0.688	\$0.574	\$0.623	\$0.688	\$0.574
1940: Jan. ....	24.56	27.39	22.01	.655	.717	.598	.644	.703	.589	.635	.697	.589
1941: Jan. ....	26.64	30.48	22.75	.683	.749	.610	.664	.722	.601	.648	.711	.600
1942: Jan. ....	33.40	38.98	26.97	.801	.890	.688	.762	.835	.670	.729	.810	.667
July. ....	36.43	42.51	28.94	.856	.949	.725	.809	.885	.701	.759	.846	.694
Oct. ....	38.89	45.31	30.66	.893	.990	.751	.839	.919	.723	.782	.869	.716
1943: Jan. ....	40.62	46.68	32.10	.919	1.017	.768	.859	.941	.733	.794	.886	.724
Apr. ....	42.48	48.67	33.58	.944	1.040	.790	.878	.957	.751	.808	.897	.741
July. ....	42.76	48.76	34.01	.963	1.060	.806	.899	.981	.766	.823	.919	.750
Oct. ....	44.86	51.26	35.18	.988	1.086	.824	.916	.997	.781	.836	.929	.765
Dec. ....	44.58	50.50	35.61	.995	1.093	.832	.927	1.011	.788	.846	.942	.773
1944: Jan. ....	45.29	51.21	36.03	1.002	1.099	.838	.931	1.013	.793	.850	.945	.778
Apr. ....	46.55	51.67	36.16	1.013	1.110	.850	.942	1.023	.806	.862	.955	.792
July. ....	46.43	51.07	37.05	1.018	1.116	.862	.950	1.035	.815	.874	.973	.799
Aug. ....	45.88	51.84	37.15	1.016	1.112	.864	.945	1.025	.818	.870	.959	.803
Sept. ....	46.24	52.18	37.66	1.032	1.132	.876	.962	1.047	.829	.886	.980	.816
Oct. <sup>3</sup> ....	46.94	53.19	37.98	1.031	1.129	.878	.956	1.037	.829	.882	.969	.815
Nov. <sup>3</sup> ....	46.80	53.00	37.94	1.033	1.135	.877	.960	1.045	.828	.882	.971	.814

<sup>1</sup> Average hourly earnings, excluding the effect of premium pay for overtime.

<sup>2</sup> Average hourly earnings, excluding premium pay for overtime, weighted by man-hours of employment in the major divisions of the manufacturing industry for January 1939.

<sup>3</sup> Preliminary.

Weekly earnings in all manufacturing averaged \$46.80 in November 1944—101.8 percent above the average in January 1939, 75.7 percent above January 1941, and 20.3 percent above October 1942. Such factors as longer hours of work, merit increases for individual workers, premium pay for overtime worked, changing composition of the labor force within plants, shifts in the distribution of workers among plants and among industries, as well as wage-rate increases, account for the rise in earnings.

Gross hourly earnings in all manufacturing averaged 103.3 cents in November 1944—63.4 percent above the average in January 1939, 51.2 percent above January 1941, and 15.7 percent above October 1942.

Straight-time average hourly earnings, as shown in columns 7 to 9, are estimated to exclude premium pay at time and a half for work in excess of 40 hours. The effect of extra pay for work on supplementary shifts and on holidays is included. For all manufacturing, the straight-time average in November 1944 was 96.0 cents per hour; this was 54.1

<sup>1</sup> Compare Trends in Factory Wages, 1939-43, in Monthly Labor Review, November 1943 (pp. 869-884), especially table 4 (p. 879). For detailed data regarding weekly earnings, see Detailed Reports for Industrial and Business Employment, November 1944, table 6 (p. 447) of this issue.



percent higher than in January 1939, 44.6 percent above January 1941, and 14.4 percent above October 1942.

The shift of workers from relatively low-wage to relatively high-wage industries since 1939 would have raised the average earnings of factory workers, even if no other influences had been present. The effects of such interindustry shifts have been eliminated from the averages shown in columns 10 to 12 of the table. If employment had been distributed between industries as it was in January 1939, the straight-time hourly earnings of factory workers would have averaged 88.2 cents in November 1944, or 41.6 percent above the corresponding average in January 1939, 36.1 percent above January 1941, and 12.8 percent above October 1942. Even this latter series of averages exaggerates the rise in wage rates, because it includes the influence of interplant shifts of employment, merit increases for individual workers, and premium rates for work on extra shifts and on holidays.



### Farm Wages in Canada, 1940-44

AVERAGE wages paid to male agricultural labor in Canada more than doubled between August 15, 1940, and August 15, 1944. In 1940, farm workers received \$1.52 daily and \$27.76 monthly, with board; those who were not given board received \$1.99 and \$41.40 daily and monthly, respectively. Corresponding figures for 1944 were \$3.76 and \$67.92 with board, and \$4.39 and \$87.86 for those not receiving board. Wages fluctuated considerably throughout each year, rising during the fall harvest months and dropping during the winter. August accordingly represented that part of the year in which earnings of farm labor were highest. The trend from 1940 to 1944 is shown in the accompanying table.

*Wage Rates of Farm Workers in Canada on August 15 of Years 1940-44<sup>1</sup>*

Date	Daily rate		Monthly rate	
	With board	Without board	With board	Without board
August 15, 1940.....	\$1.52	\$1.99	\$27.76	\$41.40
August 15, 1941.....	2.06	2.54	35.64	51.01
August 15, 1942.....	2.50	3.15	46.82	64.94
August 15, 1943.....	3.51	4.74	61.26	84.28
August 15, 1944.....	3.76	4.39	67.92	87.86

<sup>1</sup> Data are from Canada, Quarterly Bulletin of Agricultural Statistics, Dominion Bureau of Statistics, October 1942-March 1944 and July 1944-September 1944.

# Cost of Living and Retail Prices

## Trend of Prices in 1944

### Summary

PRICES rose less in 1944 than in any year since the United States entered the war, with an advance of 2 percent in retail prices of family living essentials and of 1½ percent in prices in primary markets. This advance was even smaller than in 1943.

The success in holding prices in 1944 was especially noteworthy in view of the continued rise in money incomes and the persistent pressure of the war upon the nation's manpower and material resources. Income payments to individuals in 1944 rose to the all-time peak of an estimated 155½ billion dollars, compared with the 142 billion dollars in 1943 and 71 billion dollars in 1939. Since 1941 the total quantity of goods and services sold to civilians has increased only slightly, whereas inventories of consumer goods have been sharply reduced and for some products virtually depleted. Ordinarily this huge disparity between demand and supply would have resulted in sharply rising prices. Price and rationing controls, together with the cooperation of business, labor, and consumers, made it possible to hold the line. This record could not have been achieved except for the fact that most individuals bought war bonds and made other savings in unprecedented volume instead of trying to bid for scarce supplies in the black market.

The annual price advances in specified periods since the end of 1939 are shown below.

	Percent of increase in—	
	Retail prices of living essentials	Wholesale prices
December 1939 to December 1940.....	1	1
December 1940 to December 1941.....	10	17
December 1941 to December 1942.....	9	8
December 1942 to December 1943.....	3	2
December 1943 to December 1944.....	2	1½

In comparison with the last war, the record of price stability is excellent. By the time of the Armistice in November 1918, prices had risen more than twice as much as in this war, which has already lasted a year longer than World War I, and by November 1919 had risen almost three times as much as in the present period. Compared with the pre-war level of August 1939, prices in primary markets have advanced 40 percent, and retail prices of living essentials 29 percent above the comparatively low prices prevailing in the summer of 1939.

	Percent of increase in—	
	Wholesale prices	Cost of living
World War I:		
July 1914 to November 1918.....	103	62
July 1914 to November 1919.....	115	84
World War II: August 1939 to December 1944....	40	29
		389

Although this price rise is less than half as great as during the last war, every housewife knows that an advance of nearly 30 percent in prices of family living essentials is serious. It means that it costs almost \$130 to buy what used to cost \$100. For families with fixed incomes, this requires drastic economies. The rise in costs to families with very low incomes has been greater than these figures show, because of the continued disappearance of low-priced merchandise which they ordinarily buy in larger volume than other families, and because of the comparatively large rise in food prices, which are more important in their budgets.

Late in 1944, consumers paid about the same amount for a market basket of food as at the end of 1943, and rents, fuel prices, and utility rates were about the same. However, clothing costs for workers' families were at least 6 percent more, as cheaper merchandise disappeared from the shelves and scarcities of certain kinds of cotton clothing became quite general. Housefurnishings, also limited in supply, were 12 percent higher on the average. Services, such as laundry and medical care, in general were higher. Reports to the Bureau of Labor Statistics on changes in retail prices do not show the full wartime effect of such factors as lowered quality of consumer goods and disappearance of low-priced merchandise. The President's Committee on the Cost of Living has estimated that such factors, together with others not fully measured by the index, would add a maximum of 3 to 4 points to the average price rise shown for large cities between January 1941 and September 1944. The cost-of-living index during this period rose 25.5 percent.

Although residents of this country have been well fed and well clothed in this third war year, supply shortages, heightened by increased military needs for cotton, woolen, and worsted goods as well as for food, have created some acute buying situations for both dealers and consumers. They affected especially the crowded war production cities. Articles for which supplies became much more limited in 1944 included certain kinds of clothing, housefurnishings, cigarettes, and some foodstuffs. In particular, there were pronounced shortages of many kinds of children's and infants' wear, percale housedresses, men's work clothing, shorts and business shirts, sheets and pillowcases, beef, butter, cheese, canned salmon, and some canned fruits and vegetables.

In primary markets, the chief price increases in 1944 were for textiles, farm products, and building materials. With few exceptions, these advances were moderate. Prices of most of the basic materials required for military production, including metals and chemicals, were stable or declined. Contract-price changes for munitions have continued the decline which has characterized prices of goods purchased by the Army and Navy since the beginning of the war. The War Department Index of Contract Price Changes has decreased about 10 percent since January 1944.

In the detailed discussion of price developments in 1944 that follows, the period covered is that from December 1943 to the latest date available—November or December 1944.



### Prices of Consumer Goods

In 1944 the stability of food prices, together with virtually unchanged rents and utility rates in most areas, held the average rise in the prices of living essentials during the year to 2 percent, even though there were substantial advances in the costs of apparel, housefurnishings, and some services.

#### Percent of Change in Prices of Principal Elements in the Cost of Living in Specified Periods

Commodity group	Percent of change—		
	In last year	From OPA's General Maximum Price Regulation	From start of war
	December 1943 to December 1944	May 1942 to December 1944	August 1939 to December 1944
All items.....	+2.1	+9.5	+28.8
Food.....	+2	+13.0	+47.0
Clothing.....	+6.1	+13.2	+42.4
Rent.....	+2	-1.5	+3.8
Fuel, electricity, and ice.....	0	+4.3	+12.2
Housefurnishings.....	+11.8	+17.0	+42.1
Miscellaneous.....	+4.2	+11.0	+22.6

Prices of most of the basic materials used in the production of consumer goods showed little change in primary markets. Prices of farm products rose  $2\frac{1}{2}$  percent up to late November, largely because of increases for livestock and poultry and for cotton and tobacco. In December the ceiling prices for wheat were raised 4 cents per bushel in order to maintain full parity levels for farmers under the Stabilization Extension Act. Prices of basic textile fibers and products for further manufacture also rose by slightly less than 2 percent, mainly because of higher ceilings allowed by the Office of Price Administration for cotton yarn and fabrics, in compliance with provisions of the Bankhead amendment to the Stabilization Extension Act. Most other primary-market prices of consumer goods were unchanged or slightly lower, as indicated below.

	Percent of change—	
	Last year: December 1943 to November 1944 <sup>1</sup>	From start of war: August 1939 to <sup>1</sup> November 1944
Farm products.....	+2.1	+103.9
Foods.....	-5	+56.4
Hides and leather products.....	-7	+25.4
Textile products.....	+1.7	+46.6

<sup>1</sup> Latest month available.

### FOOD PRICES

Food prices in retail and primary markets in December 1944 were at about the same level prevailing in late 1943. Since the spring of 1943, when the OPA took initial action under the President's "hold-the-line" order, there has been a moderate downward movement in

food prices. This has been accomplished by subsidy payments, "cut-backs" on maximum prices, an expansion in the scope of OPA control, and larger production of a number of foodstuffs. Prior to May 1943, food prices had advanced more sharply than any other element in the cost of living. A market basket of food that cost \$10 in the summer of 1939 cost \$14.70 in December 1944; it had cost \$15.30 in May 1943, at the peak of prices.

In 1944 the largest price declines up to late November for foodstuffs at retail were for onions (34 percent), sweetpotatoes (24 percent), and lettuce (16 percent), all of which were in short supply in 1943 owing to unfavorable crop conditions. There were also somewhat lower prices for fats and oils, fresh fish, and most meats. Retail prices of poultry, eggs, and dried fruits and vegetables were slightly higher by the end of 1944 than a year earlier. In primary markets, there was a moderate upward movement for grains, especially wheat, and for eggs. Livestock and poultry were more than 5 percent higher than at the end of 1943.

In general, food supplies were somewhat more abundant in 1944 than in 1943, according to Department of Agriculture estimates. However, the Bureau's monthly surveys in retail stores in 56 cities indicated that supplies of some important foods moving into retail stores were not adequate to meet the civilian demand. Among these were good grades of beef, veal, lamb, pork, bacon, and butter, canned salmon, American cheddar cheese, and some canned fruits. A survey conducted by the Bureau showed that in December 1944, somewhat more than half of all independent grocery stores visited in 56 large cities were completely out of bacon, about one-third had no butter, 7 out of every 10 had no canned salmon, 6 out of 10 had no canned pineapple, and about 3 out of 10 had no beef.

Although on the whole food supplies were ample, they fluctuated considerably during the course of the year, occasioning a number of important changes in rationing regulations. In the spring and summer, when meats and fruits and vegetables were relatively abundant, allowances for civilians were liberalized. For a time in the spring all meats except beefsteaks and roasts were point free, and in the late summer almost all important canned vegetables could be purchased without ration stamps. However, most meats and canned vegetables were returned to the rationed-food list at the end of the year and their point values were increased. Moreover, in view of the changed supply situation, the OPA on December 23 cancelled all ration stamps for processed foods and meats validated before December 1.

#### PRICES OF TEXTILES AND APPAREL

Costs of clothing in retail stores rose about 6 percent in 1944, the increases resulting mainly from the continued disappearance of lower-priced merchandise. Average rises of 10 percent for house dresses and 12 percent for men's shorts and pajamas from the end of 1943 to the autumn of 1944 were due almost entirely to nonavailability of the lower-priced goods. An increase during the same period of 11 percent for women's fur-trimmed coats, caused partly by the increase in the tax on such coats, and substantial advances for gloves, rayon dresses and nightgowns also contributed to the total rise for clothing prices during 1944.

Throughout the year, supplies of many types of cotton products in retail stores were small. Shortages of work clothing and of underwear, especially for children, were particularly noticeable. For example, in August and September 1944, according to surveys by the Bureau of Labor Statistics, men's work shirts and children's knit shirts and infants' diapers were not available in one-third of the retail establishments surveyed in large cities, and knit panties could not be obtained in half of the stores. Cotton yard goods were exceedingly scarce and nearly two-thirds of the stores had no supply of any kind. Women's low-priced house dresses were available in only half of the stores. Stocks of work clothing were limited, and only slightly more than half of the stores had supplies of the popular 8-ounce denim overalls.

These shortages were in almost all cases due to the growing requirements of the armed forces for textile fabrics. To meet these needs, in view of the scarcity of manpower and plant capacity, meant a steady reduction in the quantity of cotton textiles available for civilians. Thus, in September the War Production Board ordered the partial conversion of certain cotton mills to production of duck and related fabrics by looms ordinarily operating on bedspread fabrics, drapery, upholstery and pile fabrics, table damask, colored yarn suitings, corduroy and denims, drills and twills used for work clothing. Consequently, the WPB issued allocation and priority orders designed to preserve or augment the supply of certain essential civilian goods such as infants' and children's wear and staple cotton fabrics used for home sewing.

Although supplies of woolen and worsted clothing were ample during 1944, at the year's close this situation was beginning to change, as military requirements mounted rapidly. In December the WPB issued orders temporarily channeling the entire production of wool tops and worsted yarns for use in "rated" orders—i. e., orders for the armed services, lend-lease shipment, or specified essential civilian clothing. Directives were also issued to insure the production of badly needed Army overcoats and battle-jackets.

In primary markets, higher prices for textile products were due largely to the higher OPA ceiling prices allowed for major cotton products in accordance with the provisions of the Stabilization Extension Act of 1944. This act provides that maximum prices at the manufacturer's level for the individual major product must be high enough to reflect parity prices of cotton to growers. The advances during the latter half of 1944 for cotton goods at the manufacturer's level ranged from 1 percent for some knit underwear to as much as 15 percent for certain grades of combed cotton yarns. The higher prices allowed for carded cotton yarns, denims, sanforized chambray, print cloth, combed-yarn fabrics, and major types of sheets and pillowcases fell within this range. Earlier in the year—in February and March—increases had been allowed on sheets and pillowcases as well as for the work-clothing fabrics (chambray, covert and denim), in order to increase production. These increases ranged from 1½ percent to 7 percent.



## COST OF HOUSING

Rents for homes and apartments have remained virtually unchanged since the institution of Federal rent control and the roll-back of rents in 1942, but housing facilities continued to be scarce, especially in war production centers. Between September 1939 and May 1942, just prior to institution of control, rents rose 5.3 percent. During 1944 they rose only 0.2 percent. The increases in rental costs for some homes and apartments during 1944 occurred for a variety of reasons, such as curtailment of services ordinarily provided, and additional charges for services or for changes in the number of occupants. For example, in several cases the charges for the addition of furniture amounted to as much as \$65 per month and for the increase in the number of occupants to \$11. However, these advances were not frequent enough to affect the general average of rents.

In some small cities, where rents are not under Federal rent control, there were advances in rents during 1944 following a period of stable rental costs. Of the 20 small cities surveyed by the Bureau, only half were under Federal rent control in 1944. In the small cities exempt from regulation, rents showed a marked advance during the year, with increases ranging from 0.8 percent to 5.1 percent. In all of these cities except two, the increases were much larger than in 1943, when they ranged from 0.1 percent to 2.3 percent. In the small cities under rent control, rent changes ranged from a net decrease of 0.2 percent to a rise of 0.8 percent during the year. In view of the fact that such a large share of the urban population lives in cities of over 25,000 population, the rise in the small-city rents would not greatly affect the national rent picture.

The housing shortage remained acute in most cities, although the completion of public housing units, the relaxation of regulations for occupancy of public housing, and cutbacks in war activities relieved the situation in some centers. Recent surveys of vacant homes by the Bureau of Labor Statistics show a slightly larger gross vacancy rate, for example, in Minneapolis-St. Paul, Seattle, Houston, Manchester, and Portland, Maine, than for 1943 or late 1942, and a lower vacancy rate in Birmingham and Memphis. In all of the cities surveyed except Manchester and Portland vacancies amounted to less than 1.5 percent, as compared with a generally accepted vacancy norm of 5 percent. Even where vacancies became more numerous in 1944, most of the available dwellings lacked some standard facility, such as installed heating, lights, running water, or bathtub or shower. This acute shortage of desirable dwelling units continued to force families to buy homes in order to find a new place to live or to retain the one they were occupying. The removal of rental units from the market through sales or owner occupancy continued to be extensive and in some cities showed a marked increase. In Memphis, for example, where vacant homes are very scarce, about 10 percent of homes previously rented were sold or occupied by owners, and in Minneapolis, about 8 percent.

Curtailment of new construction continued during 1944, with work beginning on only 160,000 dwellings, as compared with 351,000 in 1943. Some relief may be expected from the H-2 housing program which was inaugurated in 1942 by the National Housing Agency and the War Production Board. This program allows, for selected areas,

the construction of residences with sales prices up to \$8,000 and a rent ceiling of \$65 a month, and removes all occupancy restrictions. Prior to this program, new construction was limited to homes and apartments for in-migrant essential workers and generally to sales prices of \$6,000 and a rental of \$50 per month. It is expected that this new program will relieve the general congestion and raise the quality of housing available.

#### PRICES OF HOUSEFURNISHINGS

The sharp rise of 12 percent in the retail cost of housefurnishings during 1944 was partly the result of the dropping of lower-priced lines of furniture, stoves, and textile housefurnishings. An additional factor of importance was the reappearance in civilian markets of spring-filled upholstered furniture, the production of which had been banned in the autumn of 1942. Because of increased production costs, these products sold in 1944 at prices substantially higher than when they were last available.

Aside from spring-filled furniture, several other consumer durable goods reappeared in civilian markets after an absence of a year and a half; these included vacuum cleaners, electric irons, aluminum cooking utensils, the pre-war type of coil bedsprings, and gas ranges. However, these products were made available only in limited quantities in certain areas through the easing of restrictions by the War Production Board and through the "spot authorization" program. The order, issued in December, which in general "freezes" civilian output at levels no higher than the last quarter of 1944, precludes any further expansion in their supply in the immediate future.

#### PRICES OF FUEL, ELECTRICITY, AND ICE

Retail prices of fuels and electricity were generally stable in 1944. Bituminous-coal prices advanced  $1\frac{1}{2}$  percent during the year, while anthracite prices declined slightly, following the last major advance in 1943. During 1944 coal supplies remained limited, with the rate of production at the close of the year appreciably below that at the end of 1943. Domestic consumption of virtually all supplies of anthracite, much of the supply of bituminous coal, and nearly all eastern coke was limited during the year by the Solid Fuels Administration for War. In primary markets, the most important change was a 5-percent rise in the price of coke, reflecting advances in coal prices at the end of 1943. In February, and for that month alone, OPA allowed an increase of 45 cents per ton in the price of anthracite at all levels of sale, to permit the overtime operation of mines in order to meet the developing fuel shortage. There was a slight decrease in the price of fuel oil and gasoline.

Utility rates were unchanged in most areas except in a few cities where special rebates and temporary rate reductions were given to consumers. These reductions were made for electricity in Portland (Oreg.) and Atlanta, and for gas in Detroit. The cost of both gas and electricity to the typical household consumer was smaller in 1944 than at the outbreak of war. Between September 1939 and September 1944 rates for both gas and electricity to domestic consumers declined about 3 percent. During most of the year utilities were

operating at or near capacity, and in many areas the conversion of heating equipment from other fuels to gas was forbidden and unnecessary use of electricity was discouraged.

#### COST OF OTHER GOODS AND SERVICES

The cost of many services rose appreciably during the year, continuing the steady rise in prices since 1940. The price of men's haircuts was 75 cents or a dollar in most cities, compared with 50 cents before the war. There were advances in 1944 of about 9 percent in the cost of women's beauty-shop services and of about 20 percent in the cost of domestic services. The cost of medical care was also higher, and there was a general advance in rates for newspapers and laundry services. Motion-picture admissions went up and cosmetic prices advanced, both because of the increased Federal tax. The sale of cigarettes was limited by most retailers to one pack per customer, automatically eliminating the saving attached to the purchase of two packs at a time, and raising the effective price.

As the previous discussion has indicated, taking the family budget as a whole, advances were concentrated in clothing and housefurnishings and in miscellaneous goods and services, accompanying scarcities which forced the consumer either to do without, or often to buy in a higher price line than is customary.

#### *Industrial Prices*

Prices of most basic industrial products showed little change in 1944, having an average rise of only 1½ percent from December 1943 to December 1944. In the early months of the year there were upward adjustments in OPA maximum prices for lumber and wood pulp, designed to increase production and relieve serious shortages. Coal and coke prices were also advanced, reflecting in part higher labor costs caused by wage-rate changes and other charges made in 1943. Higher maximum prices were allowed for some grades of waste paper and for brick and cement in some areas. In the petroleum industry, a Government subsidy was granted to certain crude-oil producers, in order to stimulate output in marginal wells without the necessity for a general price advance. With these exceptions, prices for most non-agricultural materials and finished products were stable.

In the summer and fall of 1944, when victory in Europe seemed imminent, an appreciable weakness appeared in the sensitive scrap-metal markets, with substantially lower prices for aluminum, copper and iron and steel scrap. Later in the year, as military demands again increased, steel-scrap prices advanced to ceiling levels and selective buying disappeared. Prices of nonferrous-metal scrap, especially aluminum and zinc, remained relatively low because of large supplies. On the other hand, supplies of both virgin and scrap lead were seriously short in the latter part of the year. There were also lower prices for chemicals, in part because of economies achieved in their production; included among these were formaldehyde, methanol, glycerin, nitrocellulose, oleic acid, and several vitamins. For the same reason it was possible for the OPA to reduce ceiling prices for synthetic-rubber tires by 7 percent and for synthetic-rubber tire tubes by 16 percent.



Although supplies of most basic industrial materials were ample, with the exception of lumber and wood pulp, several military products were in seriously short supply at the year's close, including heavy ammunition, heavy trucks, tanks, and tires. These shortages were due in part to the sudden changes in types and quantities of products required for military purposes as the campaign in Europe developed. An additional factor of considerable importance throughout the year was the increasing tightness in the labor market, particularly in the industries in which wages in general were lower than those in shipyards, airplane plants, and other war industries.

Price changes for the major industrial commodity groups are shown in the accompanying tabulation.

	Percent of increase—	
	In last year: December 1943 to November 1944 <sup>1</sup>	From start of war: August 1939 to November 1944 <sup>1</sup>
Fuel and lighting.....	+1.2	+14.5
Metals and metal products.....	— .1	+11.3
Building materials.....	+2.6	+29.9
Chemicals and allied products..... <sup>2</sup>	+4.4	+41.2
Miscellaneous commodities.....	+ .8	+28.2

<sup>1</sup> Latest month available.

<sup>2</sup> In process of revision.

#### PRICES OF BUILDING MATERIALS

Prices of building materials advanced 2½ percent in 1944, a smaller rise than in any war year except 1942. During the year the volume of new construction dropped sharply—to only half that in 1943—signaling completion of the greater part of the war-plant and essential-housing programs. The price advances for brick and cement, shown in the accompanying tabulation, were allowed by the OPA primarily to compensate producers for the rapid decline in volume of sales and accompanying higher unit overhead costs. An additional factor raising costs for some brick producers was an advance permitted in wage rates in certain areas by the War Labor Board.

	Percent of change—	
	In last year: December 1943 to November 1944 <sup>1</sup>	From start of war: August 1939 to November 1944 <sup>1</sup>
Building materials.....	+2.6	+29.9
Brick and tile.....	+5.0	+16.0
Cement.....	+4.4	+7.0
Lumber.....	+4.3	+70.7
Paint and paint materials.....	+2.9	+29.5
Plumbing and heating.....	+ .7	+16.5
Structural steel.....	0	0
Other building materials.....	+ .5	+15.4

<sup>1</sup> Latest month available.

In the case of lumber, however, demand continued to exceed supply through much of 1944. Army needs, especially for crating, continued to grow, while the manpower shortage impeded production, particularly in southern pine areas. The average price advance for lumber of 4½ percent in 1944 was the result of upward adjustments in OPA ceilings designed to encourage output at the same time that a limitation

order issued by the WPB channeled the limited supply into the most essential uses. Total production of lumber in 1944 was about 5 percent less than in 1943.

The 3-percent rise in paint and paint-material prices was due almost entirely to a 7-percent increase for turpentine, still exempt from OPA control, and a 45-percent increase for gum rosin, which was not brought under OPA control until June 1944. Although average prices for plumbing and heating products showed little change, there were two sharp price movements during the year. The first was an advance of 10½ percent in the price of heating boilers, allowed by the OPA to compensate for higher production costs. This advance was roughly offset in the group of building materials as a whole by a 10-percent decline for vitreous-china plumbing equipment, as manufacturers attempted to "unload" victory models in anticipation of release of initial pre-war materials. Prices of most other building materials, such as plaster and plasterboard, window glass and structural steel, remained unchanged during the year or moved only slightly.

#### PRICES OF METALS AND METAL PRODUCTS

Prices of metals and metal products in 1944 continued, as in the previous 3 years, at a level about 11 percent above that prevailing in 1939. Aside from small increases for agricultural implements, the only important price changes in 1944 were for scrap metals and quicksilver.

Nonferrous scrap-metal prices declined early in the year as supplies rose relative to demand, and dropped even farther in the summer and fall in response to the widespread belief that the war in Europe was near an end. From December 1943 to October 1944 the average decline in price for all nonferrous scrap was 11 percent. The market for iron and steel scrap also weakened and in the autumn average prices were 9 percent below their level at the beginning of the year, while, for the first time since 1942, the important heavy melting grade sold for less than the ceiling price.

During the last 2 months of 1944, when it became clear that the military situation would require accelerated munitions production, prices of basic grades of steel scrap again returned to ceiling levels. Abundant supplies of aluminum scrap and adequate stocks of zinc scrap, however, kept these prices below their peaks, although going market prices strengthened somewhat in November and December. The establishment of a floor on some grades of Government-owned aluminum scrap helped to stabilize the market.

Quicksilver prices also fluctuated widely. From December 1943 to July 1944 the average price of a 76-pound flask dropped from \$192.50 to \$100.50, as the Government reduced its purchases in view of a large stockpile. In one month, from December 1943 to January 1944, the price declined by nearly 20 percent. Later in the year there was a partial recovery, with the price reaching \$123.50 in December as demand increased. To help stimulate essential output, the Government fixed a minimum price on sales from its stockpile at \$2.00 above the established market quotation.

Supplies of most metals improved considerably in 1944. The outstanding exception was lead, as requirements for both the small-arms program and civilian production increased, while the manpower

shortage impeded supply. In December the War Production Board announced that most civilian uses of lead in 1945 would be limited to 60 percent of the 1944 level. On the other hand, output of aluminum so far exceeded requirements that cutbacks amounting to about 54 percent of total capacity were made during the year, although at the close of the year sheet aluminum was growing scarce, especially for use in the stepped-up aircraft program. Large cutbacks were also made in magnesium production. The tungsten supply increased so much that the Metals Reserve Co. discontinued premium payments.

#### CHEMICALS AND ALLIED PRODUCTS

Markets for most chemicals and allied products were stable in 1944, and improved supply and increased production efficiency were reported for many products. The largest price advance during the year resulted from the increased excise tax established for ethyl alcohol in April. Average prices for fertilizer materials rose fractionally as the result of a 7-percent advance in Florida phosphate rock, allowed by the OPA to meet higher labor costs. Aside from these advances, prices of most other basic chemicals and drugs were unchanged and a few were substantially lower.

Improved efficiency and the economies of mass production resulted in a price reduction of 14 percent for methanol, 52 percent for penicillin, from 5½ to 20 percent for formaldehyde and comparable reductions for formaldehyde derivatives, and from 16 to 52 percent for synthetic vitamins. In addition a price reduction of nearly 16 percent was announced by producers of anhydrous ammonia in November. In December 1944, prices of formaldehyde in tank cars and the synthetic vitamins were at all-time lows. Increasing fat supplies resulted in a price decline of 20 percent for glycerine.

Although supplies of many important chemicals improved in 1944, certain products remained in seriously short supply. Among these were sulfuric acid, toluene, xylol, and benzene. On the other hand, 42 chemicals were removed from the critical group-1 list of the WPB during the year, including several plastic materials, acrylic resins, allyl resins, and ethyl cellulose and polystyrene. In addition, the improvement in the supply of industrial alcohol was sufficient to permit distillers to resume production of beverage alcohol for one month (August).

#### PRICES OF PAPER AND PULP

Although almost all types of paper and pulp were scarce throughout 1944, most prices were stable and there was an average advance of slightly more than 1 percent during the year. The only sharp price increases occurred for raw or semifabricated materials. In order to encourage production, the OPA in February advanced ceiling prices from 7 to 14 percent for sulfate, ground wood, and soda grades of wood pulp. Advances in maximum prices for waste paper, averaging 26 percent during the year, were permitted in order to encourage collection. Pulp-wood prices in several important regions were also advanced. On the other hand, prices of most finished products—box-board, book paper, wrapping and tissue paper, newsprint, etc.—were unchanged.

The chief source of increased demand for paper in 1944 was from the armed forces for use in packaging. At the same time civilian demand



remained high and manufacturers were forced to seek new ways for increasing utilization of fiber. However, the price advances allowed for pulp wood and waste paper during the year were partly responsible for increasing receipts by 26 and 16 percent, respectively, above 1943.



### Cost of Living in Large Cities, December 1944

PRICES of living essentials rose three-tenths of 1 percent between mid-November and mid-December 1944. Seasonal advances in the prices of fresh fruits and vegetables and continued scarcities of lower-priced textile goods were mainly responsible for the increase. On December 15, the Bureau of Labor Statistics index of the living costs of moderate-income families stood at 127.0 percent of the 1935-39 average and 2.1 percent above the December 1943 level.

The family food bill advanced 0.7 percent during the month, as seasonal price increases were reported for most fresh fruits and vegetables. Prices of cabbage, onions, and sweetpotatoes advanced more than is usual at this season, while lettuce prices, which generally decline slightly between November and December, rose almost 15 percent during the month because of the short crop. Small advances were reported in the prices of meats, fish, poultry, and eggs, and supplies of meats and poultry in retail stores were very limited. During the course of the year food costs as a whole remained relatively stable, increasing only 0.2 percent from their December 1943 level.

Clothing prices rose again by 0.5 percent on the average between mid-November and mid-December. Scattered advances occurred in prices of cotton clothing, particularly for work garments. Yard goods and inexpensive clothing of all kinds were increasingly hard to get. In a few cities price declines were reported on men's lower-quality shirts and shorts, as stores received only small supplies produced under the WPB-OPA "low-cost clothing" program.

In general, textile housefurnishings and all types of furniture were also in short supply. Substitutions of higher price lines and the continued reintroduction of spring-filled furniture at prices above those at which it was last marketed contributed largely to the 0.9 percent increase during the month in the average cost of housefurnishings.

The cost of miscellaneous goods and services rose 0.2 percent because of increased costs for cigarettes and pipe tobacco, as more retailers limited customers to one pack. Scattered advances occurred in charges for newspapers, for medical care, and for domestic, barber, and beauty-shop services.

Utility bills were substantially reduced in December in three cities. Rebates on December bills were allowed to consumers of electricity in Atlanta and of gas in Detroit. In Cleveland, the Ohio Public Utilities Commission ordered a retroactive rate reduction.

Further slight increases were reported in rental costs in some cities; the largest advances were in Jacksonville (0.6 percent from June to December 1944), Savannah (0.4 percent from June to December 1944), and Mobile (0.3 percent from September to December 1944). The 0.1-percent increase reported for all the large cities

combined, in December 1944, summarizes changes since September 15 in 6 cities and since June 15 in 14 cities.<sup>1</sup>

In connection with the data shown in the following tables, it should be borne in mind that the Bureau of Labor Statistics' index indicates average changes in retail prices of selected goods, rents, and services bought by families of wage earners and lower-salaried workers in large cities. The items covered represented 70 percent of the expenditures of families who had incomes ranging from \$1,250 to \$2,000 in 1934-36. The index does not show the full wartime effect on the cost of living of such factors as lowered quality, disappearance of low-priced goods, and forced changes in housing and eating away from home. It does not measure changes in *total* "living costs"—that is, in the total amount families spend for living. Income taxes and bond subscriptions are not included.<sup>2</sup>

TABLE 1.—Indexes of Cost of Living in Large Cities, Dec. 15, 1944, and Earlier Dates

Date	Indexes <sup>1</sup> (1935-39=100) of cost of—						
	All items	Food	Clothing	Rent	Fuel, electricity, and ice	House-furnishings	Miscellaneous
1939: Aug. 15.....	98.6	93.5	100.3	104.3	97.5	100.6	100.4
1941: Jan. 15.....	100.8	97.8	100.7	105.0	100.8	100.1	101.9
1942: May 15.....	116.0	121.6	126.2	109.9	104.9	122.2	110.9
Sept. 15.....	117.8	126.6	125.8	108.0	106.2	123.6	111.4
1943: Dec. 15.....	124.4	137.1	134.6	108.1	109.4	127.9	118.1
1944: Oct. 15.....	<sup>4</sup> 126.5	136.4	<sup>4</sup> 141.9	(?)	109.8	<sup>4</sup> 141.4	<sup>4</sup> 122.8
Nov. 15.....	<sup>4</sup> 126.6	136.5	<sup>4</sup> 142.1	(?)	109.9	<sup>4</sup> 141.7	<sup>4</sup> 122.9
Dec. 15.....	127.0	137.4	142.8	<sup>3</sup> 108.3	109.4	143.0	123.1

<sup>1</sup> Based on changes in cost of goods purchased by wage earners and lower-salaried workers.

<sup>2</sup> Rents not collected in this month.

<sup>3</sup> Based on rents in 20 large cities in December 1944 and assuming no change in cities not surveyed in that month. See text footnote 1 below.

<sup>4</sup> Revised.

TABLE 2.—Percent of Change<sup>1</sup> in Cost of Living in Large Cities in Specified Periods

Date	All items	Food	Clothing	Rent	Full, electricity, and ice	House-furnishings	Miscellaneous
Nov. 15, 1944 to Dec. 15, 1944.....	+0.3	+0.7	+0.5	<sup>2</sup> +0.1	-0.5	+0.9	+0.2
Dec. 15, 1943 to Dec. 15, 1944.....	+2.1	+2	+6.1	+2	0	+11.8	+4.2
Sept. 15, 1942 to Dec. 15, 1944.....	+7.8	+8.5	+13.5	+3	+3.0	+15.7	+10.5
May 15, 1942 to Dec. 15, 1944.....	+9.5	+13.0	+13.2	-1.5	+4.3	+17.0	+11.0
Jan. 15, 1941 to Dec. 15, 1944.....	+26.0	+40.5	+41.8	+3.1	+8.5	+42.9	+20.8
Aug. 15, 1939 to Dec. 15, 1944.....	+28.8	+47.0	+42.4	+3.8	+12.2	+42.1	+22.6

<sup>1</sup> Based on changes in cost of goods purchased by wage earners and lower-salaried workers.

<sup>2</sup> Change from Sept. 15, 1944. Based on rents in 20 large cities in December 1944 and assuming no change in cities not surveyed in December. See footnote 1 below.

<sup>3</sup> Because of the comparative stability of rents under OPA control, rents are now reported quarterly in some cities and semiannually in others. Changes which occur between successive rent surveys are shown in the city rent indexes at the date of the latest survey; changes for intervening dates are not estimated in the city rent index. The rent index for the average of large cities is computed quarterly on the basis of rent changes in the cities actually surveyed (20 in December), and on the assumption that no change has occurred in the other cities since they were surveyed 3 months previously.

<sup>4</sup> For a description of the methods used in computing the index, see Description of the Cost-of-Living Index of the Bureau of Labor Statistics. For an appraisal of the factors enumerated above, see the report of the President's Committee on the Cost of Living, November 17, 1944.

TABLE 3.—Percent of Change<sup>1</sup> in Cost of Living in Specified Periods, by Cities

City	Dec. 15, 1943, to Dec. 15, 1944	Aug. 15, 1939, to Dec. 15, 1944	Jan. 1, 1941, to Dec. 15, 1944	May 15, 1942, to Dec. 15, 1944	Sept. 15, 1942, to Dec. 15, 1944
Average: Large cities.....	+2.1	+28.8	+26.0	+9.5	+7.8
New England:					
Boston.....	+2.0	+27.2	+24.6	+8.9	+6.3
Manchester.....	+2.3	+32.2	+29.0	+9.2	+7.6
Portland, Maine.....	+1.7	+29.4	+27.5	+8.5	+6.4
Middle Atlantic:					
Buffalo.....	+1.8	+29.0	+24.7	+5.5	+5.5
New York.....	+2.2	+29.2	+26.6	+12.9	+10.0
Philadelphia.....	+1.9	+28.7	+26.9	+9.8	+7.7
Pittsburgh.....	+2.9	+30.1	+26.5	+10.5	+8.9
Scranton.....	+2.9	+30.2	+26.0	+10.1	+8.5
East North Central:					
Chicago.....	+2.6	+28.0	+24.8	+8.4	+7.7
Cincinnati.....	+2.1	+30.3	+27.3	+9.4	+7.5
Cleveland.....	+1.6	+29.1	+26.6	+8.7	+7.9
Detroit.....	+1.7	+29.4	+26.2	+7.3	+7.7
Indianapolis.....	+2.6	+30.6	+25.5	+7.7	+7.5
Milwaukee.....	+2.3	+28.1	+25.3	+8.6	+7.8
West North Central:					
Kansas City.....	+2.0	+26.6	+26.8	+9.4	+8.8
Minneapolis.....	+1.9	+23.6	+21.0	+6.3	+5.5
St. Louis.....	+1.6	+27.7	+24.1	+8.4	+7.5
South Atlantic:					
Atlanta.....	+3.5	+31.3	+29.0	+12.2	+9.7
Baltimore.....	+2.6	+30.9	+28.3	+9.3	+7.8
Jacksonville.....	+3.1	+36.4	+31.9	+12.8	+10.6
Norfolk.....	+1.1	+34.6	+30.8	+9.9	+7.8
Richmond.....	+1.9	+26.9	+24.9	+8.4	+6.1
Savannah.....	+2.1	+35.5	+32.7	+11.3	+10.2
Washington, D. C.....	+1.9	+27.6	+25.9	+9.7	+7.4
East South Central:					
Birmingham.....	+2.7	+33.0	+28.9	+10.4	+10.3
Memphis.....	+2.0	+33.1	+30.5	+11.3	+9.1
Mobile.....	+1.9	+30.7	+28.4	+8.6	+6.6
West South Central:					
Houston.....	+1.1	+23.8	+22.3	+7.3	+5.7
New Orleans.....	+1.3	+31.4	+28.8	+10.8	+7.7
Mountain: Denver.....	+2.1	+27.9	+26.1	+9.1	+7.6
Pacific:					
Los Angeles.....	+2.0	+28.5	+26.0	+9.3	+6.1
Portland, Oreg.....	+2.9	+33.2	+30.7	+9.5	+6.7
San Francisco.....	+4.1	+33.6	+30.4	+12.8	+9.8
Seattle.....	+1.9	+30.7	+28.4	+8.2	+6.8

<sup>1</sup> Based on indexes of cost of goods purchased by wage earners and lower-salaried workers.



TABLE 4.—Percent of Change<sup>1</sup> in Cost of Living, Nov. 15 to Dec. 15, 1944, by Cities

City	All items	Food	Clothing	Rent	Fuel, electricity and ice	House-furnishings	Miscellaneous
Average: Large cities.....	+0.3	<sup>2</sup> +0.7	+0.5	<sup>3</sup> +0.1	-0.5	+0.9	+0.2
New England: Boston.....	+4	+7	+2	+1	0	+8	0
Middle Atlantic:							
Buffalo.....	+3	+5	+5	+2	0	+1	0
New York.....	+5	+9	+4	<sup>4</sup> 0	0	+1.7	+1
Philadelphia.....	+7	+1.3	+3	( <sup>5</sup> )	0	+1.4	+2
Pittsburgh.....	+9	+1.0	+2.6	+2	0	+1.3	0
East North Central:							
Chicago.....	+3	+5	+7	+1	0	+6	+2
Cincinnati.....	+4	+2	+1.1	+2	0	+1	+6
Cleveland.....	-1.0	-1.4	+6	+1	-9.7	+1.5	+1
Detroit.....	+3	+3	+4	+1	-4	+1.7	+6
West North Central:							
Kansas City.....	+5	+5	+1.2	+3	0	+1.4	+2
Minneapolis.....	+2	+3	+3	( <sup>6</sup> )	0	+4	+2
St. Louis.....	+3	+7	0	( <sup>6</sup> )	0	+1	+1
South Atlantic:							
Baltimore.....	0	-3	+1	( <sup>6</sup> )	-1	+4	+2
Savannah.....	+1	-1	+1	+4	0	+1.1	+1
Washington, D. C.....	+2	+3	+3	0	0	+5	+2
East South Central: Birmingham.....	+4	+7	+3	( <sup>6</sup> )	0	+1.2	+2
West South Central: Houston.....	+6	+1.0	+5	( <sup>6</sup> )	0	+2.3	+2
Mountain: Denver.....	+6	+1.1	+7	+2	+1	+1.3	+1
Pacific:							
Los Angeles.....	+2	+4	0	+2	0	-3	0
San Francisco.....	+8	+1.9	+6	( <sup>6</sup> )	0	+1	+1
Seattle.....	+6	+8	-1	( <sup>6</sup> )	0	+5.4	+5

<sup>1</sup> Based on indexes of cost of goods purchased by wage earners and lower-salaried workers.<sup>2</sup> Based on prices for 56 cities, collected on the Tuesday nearest the 15th of the month.<sup>3</sup> Change from Sept. 15, 1944. Based on rents in 20 large cities surveyed in December 1944 and assuming no change in rents in cities not surveyed in that month.<sup>4</sup> Change from June 15, 1944.<sup>5</sup> Change from Sept. 15, 1944.<sup>6</sup> Rents not reported in December. See text footnote 1, p. 401.

TABLE 5.—Indexes of Cost of Living in Large Cities in Quarter Ending Dec. 15, 1944

[This table of city indexes is published at quarterly intervals. Some of the indexes here shown for October and November are revisions of figures previously published]

City and date	Indexes <sup>1</sup> (1935-39=100) of cost of—						
	All items	Food	Clothing	Rent	Fuel, electricity, and ice	House-furnishings	Miscellaneous
Average: Large cities							
Oct. 15.....	126.5	<sup>2</sup> 136.4	141.9	( <sup>3</sup> )	109.8	141.4	122.8
Nov. 15.....	126.6	<sup>2</sup> 136.5	142.1	( <sup>3</sup> )	109.9	141.7	122.9
Dec. 15.....	127.0	<sup>2</sup> 137.4	142.8	<sup>4</sup> 108.3	109.4	143.0	123.1
New England:							
Boston:							
Oct. 15.....	122.7	131.1	139.4	( <sup>3</sup> )	120.0	138.4	117.2
Nov. 15.....	123.0	131.8	139.6	( <sup>3</sup> )	120.2	138.4	117.3
Dec. 15.....	123.5	132.7	139.9	105.0	120.2	139.5	117.3
Manchester:							
Oct. 15.....	( <sup>5</sup> )	133.4	( <sup>5</sup> )	( <sup>5</sup> )	127.4	( <sup>5</sup> )	( <sup>5</sup> )
Nov. 15.....	( <sup>5</sup> )	133.6	( <sup>5</sup> )	( <sup>5</sup> )	127.5	( <sup>5</sup> )	( <sup>5</sup> )
Dec. 15.....	129.3	133.6	146.4	( <sup>5</sup> )	127.4	146.4	122.1
Portland, Maine:							
Oct. 15.....	( <sup>5</sup> )	133.8	( <sup>5</sup> )	( <sup>5</sup> )	119.0	( <sup>5</sup> )	( <sup>5</sup> )
Nov. 15.....	( <sup>5</sup> )	133.2	( <sup>5</sup> )	( <sup>5</sup> )	119.2	( <sup>5</sup> )	( <sup>5</sup> )
Dec. 15.....	125.6	133.1	142.6	( <sup>5</sup> )	119.3	137.9	122.4
Middle Atlantic:							
Buffalo:							
Oct. 15.....	127.1	134.7	139.8	( <sup>5</sup> )	106.9	142.5	126.2
Nov. 15.....	126.7	133.4	140.2	( <sup>5</sup> )	106.9	142.8	126.2
Dec. 15.....	127.1	134.1	140.9	114.8	106.9	143.0	126.2
New York:							
Oct. 15.....	127.1	137.2	147.8	( <sup>5</sup> )	113.8	134.0	125.6
Nov. 15.....	127.3	137.4	148.0	( <sup>5</sup> )	114.0	134.1	125.6
Dec. 15.....	127.9	138.7	148.6	103.5	114.0	136.4	125.7

See footnotes at end of table.

TABLE 5.—*Indexes of Cost of Living in Large Cities in Quarter Ending Dec. 15, 1944—Continued*

City and date	Indexes <sup>1</sup> (1935-39=100) of cost of—						
	All items	Food	Clothing	Rent	Fuel, electricity, and ice	House-furnishings	Miscellaneous
<b>Middle Atlantic—Continued.</b>							
Philadelphia:							
Oct. 15.....	125.0	133.5	143.4	( <sup>2</sup> )	109.1	130.1	120.1
Nov. 15.....	125.0	133.3	143.5	( <sup>2</sup> )	109.2	139.2	120.3
Dec. 15.....	125.9	135.0	144.0	( <sup>2</sup> )	109.2	141.2	120.5
Pittsburgh:							
Oct. 15.....	127.5	136.6	160.1	( <sup>2</sup> )	112.0	137.1	119.5
Nov. 15.....	126.9	134.7	160.5	( <sup>2</sup> )	112.0	137.8	119.6
Dec. 15.....	128.0	136.1	164.7	107.6	112.0	139.6	119.6
Scranton:							
Oct. 15.....	( <sup>2</sup> )	138.1	( <sup>2</sup> )	( <sup>2</sup> )	111.0	( <sup>2</sup> )	( <sup>2</sup> )
Nov. 15.....	( <sup>2</sup> )	136.3	( <sup>2</sup> )	( <sup>2</sup> )	111.0	( <sup>2</sup> )	( <sup>2</sup> )
Dec. 15.....	125.0	137.2	146.4	97.2	111.1	144.0	115.5
<b>East North Central:</b>							
Chicago:							
Oct. 15.....	125.8	135.8	136.1	( <sup>2</sup> )	105.2	140.1	121.0
Nov. 15.....	125.9	135.8	136.3	( <sup>2</sup> )	105.2	140.5	121.2
Dec. 15.....	126.3	136.5	137.2	114.8	105.2	141.4	121.4
Cincinnati:							
Oct. 15.....	125.8	133.4	142.0	( <sup>2</sup> )	106.2	145.6	124.4
Nov. 15.....	126.3	134.4	142.6	( <sup>2</sup> )	106.2	145.7	124.7
Dec. 15.....	126.8	134.7	144.2	105.6	106.2	145.8	125.5
Cleveland:							
Oct. 15.....	130.1	141.9	142.6	( <sup>2</sup> )	115.3	139.7	122.1
Nov. 15.....	130.4	142.6	142.9	( <sup>2</sup> )	115.3	139.8	122.2
Dec. 15.....	129.1	140.6	143.7	115.9	104.1	141.9	122.3
Detroit:							
Oct. 15.....	127.2	132.8	140.3	( <sup>2</sup> )	112.3	143.6	128.5
Nov. 15.....	127.1	132.3	140.4	( <sup>2</sup> )	112.3	143.9	128.6
Dec. 15.....	127.5	132.7	140.9	114.9	111.9	146.3	129.4
Indianapolis:							
Oct. 15.....	( <sup>2</sup> )	132.7	( <sup>2</sup> )	( <sup>2</sup> )	112.2	( <sup>2</sup> )	( <sup>2</sup> )
Nov. 15.....	( <sup>2</sup> )	133.1	( <sup>2</sup> )	( <sup>2</sup> )	112.2	( <sup>2</sup> )	( <sup>2</sup> )
Dec. 15.....	128.0	133.8	136.8	115.9	112.2	149.5	126.7
Milwaukee:							
Oct. 15.....	( <sup>2</sup> )	135.7	( <sup>2</sup> )	( <sup>2</sup> )	109.0	( <sup>2</sup> )	( <sup>2</sup> )
Nov. 15.....	( <sup>2</sup> )	135.2	( <sup>2</sup> )	( <sup>2</sup> )	109.5	( <sup>2</sup> )	( <sup>2</sup> )
Dec. 15.....	124.3	135.2	133.9	( <sup>2</sup> )	109.5	142.7	119.2
<b>West North Central:</b>							
Kansas City:							
Oct. 15.....	124.0	129.7	140.3	( <sup>2</sup> )	110.2	128.1	125.1
Nov. 15.....	124.2	130.3	140.5	( <sup>2</sup> )	110.2	128.2	125.1
Dec. 15.....	124.8	131.0	142.2	109.8	110.2	130.0	125.3
Minneapolis:							
Oct. 15.....	123.0	130.4	137.4	( <sup>2</sup> )	103.1	134.7	122.1
Nov. 15.....	122.9	130.0	137.6	( <sup>2</sup> )	103.1	135.2	122.1
Dec. 15.....	123.2	130.4	138.0	( <sup>2</sup> )	103.1	135.7	122.4
St. Louis:							
Oct. 15.....	124.6	138.0	139.7	( <sup>2</sup> )	107.2	126.1	118.5
Nov. 15.....	124.9	138.5	139.8	( <sup>2</sup> )	107.2	126.1	119.2
Dec. 15.....	125.3	139.5	139.8	( <sup>2</sup> )	107.2	126.2	119.3
<b>South Atlantic:</b>							
Atlanta:							
Oct. 15.....	( <sup>2</sup> )	136.9	( <sup>2</sup> )	( <sup>2</sup> )	116.2	( <sup>2</sup> )	( <sup>2</sup> )
Nov. 15.....	( <sup>2</sup> )	137.9	( <sup>2</sup> )	( <sup>2</sup> )	116.2	( <sup>2</sup> )	( <sup>2</sup> )
Dec. 15.....	128.7	138.8	130.7	( <sup>2</sup> )	114.1	133.7	130.4
Baltimore:							
Oct. 15.....	128.3	142.0	146.2	( <sup>2</sup> )	108.9	147.4	121.0
Nov. 15.....	129.2	144.3	146.3	( <sup>2</sup> )	109.0	147.8	121.3
Dec. 15.....	129.2	143.9	146.5	( <sup>2</sup> )	108.9	148.4	121.5
Jacksonville:							
Oct. 15.....	( <sup>2</sup> )	146.1	( <sup>2</sup> )	( <sup>2</sup> )	114.2	( <sup>2</sup> )	( <sup>2</sup> )
Nov. 15.....	( <sup>2</sup> )	145.9	( <sup>2</sup> )	( <sup>2</sup> )	114.2	( <sup>2</sup> )	( <sup>2</sup> )
Dec. 15.....	134.4	146.8	141.0	113.2	114.2	153.4	133.8
Norfolk:							
Oct. 15.....	( <sup>2</sup> )	140.8	( <sup>2</sup> )	( <sup>2</sup> )	119.6	( <sup>2</sup> )	( <sup>2</sup> )
Nov. 15.....	( <sup>2</sup> )	142.0	( <sup>2</sup> )	( <sup>2</sup> )	119.6	( <sup>2</sup> )	( <sup>2</sup> )
Dec. 15.....	131.6	143.2	141.1	109.1	119.7	145.6	129.5

See footnotes at end of table.

TABLE 5.—*Indexes of Cost of Living in Large Cities in Quarter Ending Dec. 15, 1944—Continued*

City and date	Indexes <sup>1</sup> (1935-39=100) of cost of—						
	All items	Food	Clothing	Rent	Fuel, electricity, and ice	House-furnishings	Miscellaneous
<b>South Atlantic—Continued.</b>							
<b>Richmond:</b>							
Oct. 15.....	( <sup>2</sup> )	134.7	( <sup>2</sup> )	( <sup>2</sup> )	108.6	( <sup>2</sup> )	( <sup>2</sup> )
Nov. 15.....	( <sup>2</sup> )	135.7	( <sup>2</sup> )	( <sup>2</sup> )	108.6	( <sup>2</sup> )	( <sup>2</sup> )
Dec. 15.....	124.4	137.1	142.4	( <sup>2</sup> )	108.6	140.8	116.2
<b>Savannah:</b>							
Oct. 15.....	134.5	150.9	142.5	( <sup>2</sup> )	111.9	140.2	129.3
Nov. 15.....	134.4	150.6	142.8	( <sup>2</sup> )	111.9	140.2	129.3
Dec. 15.....	134.6	150.5	142.9	115.7	111.9	141.8	129.4
<b>Washington, D. C.:</b>							
Oct. 15.....	124.8	134.7	149.1	( <sup>2</sup> )	108.8	138.3	126.6
Nov. 15.....	125.5	136.7	149.3	( <sup>2</sup> )	108.8	139.0	126.6
Dec. 15.....	125.8	137.1	149.8	100.3	108.8	139.7	126.8
<b>East South Central:</b>							
<b>Birmingham:</b>							
Oct. 15.....	129.8	139.5	139.9	( <sup>2</sup> )	104.5	138.9	124.7
Nov. 15.....	130.5	141.3	139.9	( <sup>2</sup> )	104.5	138.9	124.8
Dec. 15.....	131.0	142.3	140.3	( <sup>2</sup> )	104.5	140.6	125.1
<b>Memphis:</b>							
Oct. 15.....	( <sup>2</sup> )	144.9	( <sup>2</sup> )	( <sup>2</sup> )	105.4	( <sup>2</sup> )	( <sup>2</sup> )
Nov. 15.....	( <sup>2</sup> )	144.9	( <sup>2</sup> )	( <sup>2</sup> )	105.4	( <sup>2</sup> )	( <sup>2</sup> )
Dec. 15.....	130.2	145.6	147.0	( <sup>2</sup> )	105.4	139.0	119.6
<b>Mobile:</b>							
Oct. 15.....	( <sup>2</sup> )	145.4	( <sup>2</sup> )	( <sup>2</sup> )	102.9	( <sup>2</sup> )	( <sup>2</sup> )
Nov. 15.....	( <sup>2</sup> )	145.0	( <sup>2</sup> )	( <sup>2</sup> )	102.9	( <sup>2</sup> )	( <sup>2</sup> )
Dec. 15.....	128.9	144.6	137.8	115.1	102.9	144.9	119.7
<b>West South Central:</b>							
<b>Houston:</b>							
Oct. 15.....	124.6	136.6	137.7	( <sup>2</sup> )	91.1	128.9	123.0
Nov. 15.....	124.0	134.6	138.0	( <sup>2</sup> )	91.1	129.4	123.0
Dec. 15.....	124.7	135.9	138.7	( <sup>2</sup> )	91.1	132.4	123.2
<b>New Orleans:</b>							
Oct. 15.....	( <sup>2</sup> )	150.7	( <sup>2</sup> )	( <sup>2</sup> )	104.4	( <sup>2</sup> )	( <sup>2</sup> )
Nov. 15.....	( <sup>2</sup> )	149.7	( <sup>2</sup> )	( <sup>2</sup> )	104.4	( <sup>2</sup> )	( <sup>2</sup> )
Dec. 15.....	131.0	150.3	138.6	107.3	104.4	129.5	118.7
<b>Mountain:</b>							
<b>Denver:</b>							
Oct. 15.....	125.2	136.2	133.5	( <sup>2</sup> )	104.1	146.7	122.0
Nov. 15.....	125.3	136.4	133.7	( <sup>2</sup> )	104.1	146.9	122.0
Dec. 15.....	126.1	137.9	134.6	109.5	104.2	148.8	122.1
<b>Pacific:</b>							
<b>Los Angeles:</b>							
Oct. 15.....	128.7	143.0	139.7	( <sup>2</sup> )	92.5	138.4	125.3
Nov. 15.....	128.8	143.3	139.9	( <sup>2</sup> )	92.5	138.4	125.3
Dec. 15.....	129.1	143.9	139.9	110.7	92.5	138.0	125.3
<b>Portland, Oreg.:</b>							
Oct. 15.....	( <sup>2</sup> )	146.5	( <sup>2</sup> )	( <sup>2</sup> )	116.6	( <sup>2</sup> )	( <sup>2</sup> )
Nov. 15.....	( <sup>2</sup> )	146.8	( <sup>2</sup> )	( <sup>2</sup> )	116.6	( <sup>2</sup> )	( <sup>2</sup> )
Dec. 15.....	133.3	148.1	141.8	115.4	116.6	138.0	127.0
<b>San Francisco:</b>							
Oct. 15.....	131.0	145.2	140.0	( <sup>2</sup> )	92.6	138.7	130.8
Nov. 15.....	131.6	146.3	140.6	( <sup>2</sup> )	92.6	138.7	131.1
Dec. 15.....	132.7	149.1	141.4	( <sup>2</sup> )	92.6	138.8	131.2
<b>Seattle:</b>							
Oct. 15.....	130.5	143.3	141.5	( <sup>2</sup> )	103.5	131.0	130.6
Nov. 15.....	130.3	142.7	141.5	( <sup>2</sup> )	103.5	133.8	130.6
Dec. 15.....	131.1	143.9	141.4	( <sup>2</sup> )	103.5	141.0	131.2

<sup>1</sup> Based on changes in cost of goods purchased by wage earners and lower-salaried workers.<sup>2</sup> Based on prices for 56 cities, collected on the Tuesday nearest the 15th of the month.<sup>3</sup> Data not available.<sup>4</sup> Based on rents in 20 large cities in December 1944 and assuming no change in rents in cities not surveyed in that month. See text footnote 1, p. 401.



TABLE 6.—*Indexes of Cost of Living in Large Cities, 1935 to December 1944*

Year and month	Indexes <sup>1</sup> (1935-39=100) of cost of—						
	All items	Food	Clothing	Rent	Fuel, electricity, and ice	House-furnishings	Miscellaneous
1935.....	98.1	100.4	96.8	94.2	100.7	94.8	96.1
1936.....	99.1	101.3	97.6	96.4	100.2	96.3	98.7
1937.....	102.7	105.3	102.8	100.9	100.2	104.3	101.0
1938.....	100.8	97.8	102.2	104.1	99.9	103.3	101.5
1939.....	99.4	95.2	100.5	104.3	99.0	101.3	100.7
1940.....	100.2	96.6	101.7	104.6	99.7	100.5	101.1
1941.....	105.2	105.5	106.3	106.2	102.2	107.3	104.0
1942.....	116.5	123.9	124.2	108.5	105.4	122.2	110.9
1943.....	123.6	138.0	129.7	108.0	107.7	125.6	115.8
1944:							
Jan. 15.....	124.2	136.1	134.7	108.1	109.5	128.3	118.4
Feb. 15.....	123.8	134.5	135.2	108.1	110.3	128.7	118.7
Mar. 15.....	123.8	134.1	136.7	108.1	109.9	129.0	119.1
Apr. 15.....	124.6	134.6	137.1	108.1	109.9	132.9	120.9
May 15.....	125.1	135.5	137.4	108.1	109.8	135.0	121.3
June 15.....	125.4	135.7	138.0	108.1	109.6	138.4	121.7
July 15.....	126.1	137.4	138.3	<sup>2</sup> 108.2	109.7	138.7	122.0
Aug. 15.....	126.4	137.7	139.4	<sup>2</sup> 108.2	109.8	139.3	122.3
Sept. 15.....	126.5	137.0	141.4	<sup>2</sup> 108.2	109.8	140.7	122.4
Oct. 15.....	<sup>2</sup> 126.5	136.4	<sup>2</sup> 141.9	( <sup>4</sup> )	109.8	<sup>2</sup> 141.4	<sup>2</sup> 122.8
Nov. 15.....	<sup>2</sup> 126.6	136.5	<sup>2</sup> 142.1	( <sup>4</sup> )	109.9	<sup>2</sup> 141.7	<sup>2</sup> 122.9
Dec. 15.....	127.0	137.4	142.8	<sup>2</sup> 108.3	109.4	143.0	123.1

<sup>1</sup> Based on changes in cost of goods purchased by wage earners and lower-salaried workers.<sup>2</sup> Revised.<sup>3</sup> Based on rents in 20 large cities in this month and assuming no change in rents in cities not surveyed.<sup>4</sup> Rents not surveyed in this month.

## Retail Prices of Food in November 1944

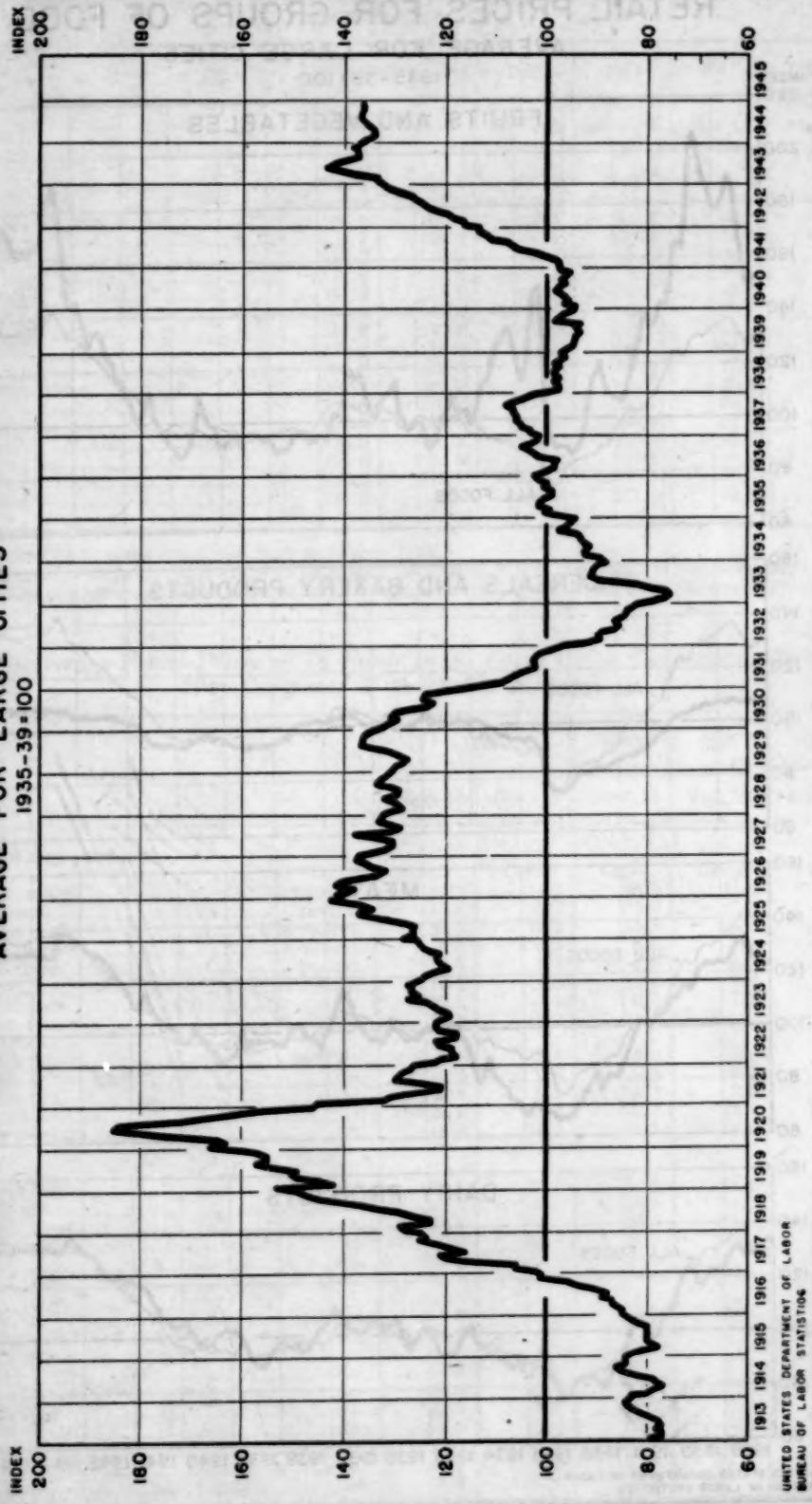
PERCENTAGE changes in retail food costs on November 14, 1944, as compared with costs in the previous month and in November 1943, are shown in table 1.

TABLE 1.—*Percent of Change in Retail Costs of Food in 56 Large Cities Combined,<sup>1</sup> by Commodity Groups, in Specified Periods*

Commodity group	Oct. 17, 1944, to Nov. 14, 1944	Nov. 16, 1943, to Nov. 14, 1944	Sept. 15, 1942, to Nov. 14, 1944	Jan. 14, 1941, to Nov. 14, 1944	Aug. 15, 1939, to Nov. 14, 1944
All foods.....	+0.1	-0.6	+7.8	+39.6	+46.0
Cereals and bakery products.....	0	+3	+3.0	+14.4	+16.3
Meats.....	+2	-5	-7	+28.3	+35.5
Beef and veal.....	0	-7	-6.2	+8.0	+18.7
Pork.....	0	-1.0	-9.5	+30.3	+27.5
Lamb.....	-1	+7	+6	+36.3	+36.1
Chickens.....	+3	+2.7	+12.5	+54.7	+59.0
Fish, fresh and canned.....	+2.2	-5.9	+25.0	+77.2	+111.1
Dairy products.....	0	0	+4.6	+27.1	+43.5
Eggs.....	+4.3	-2.2	+20.3	+91.7	+105.8
Fruits and vegetables.....	-1.4	-1.2	+23.9	+72.2	+73.9
Fresh.....	-1.6	-1.5	+28.6	+79.4	+80.6
Canned.....	-1	-2	+4.7	+41.8	+41.5
Dried.....	+5	+2.5	+16.1	+67.2	+84.4
Beverages.....	0	-4	+4	+36.7	+31.0
Fats and oils.....	+1	-1.4	+2.1	+53.4	+45.8
Sugar and sweets.....	+1	-1	-4	+32.7	+32.3

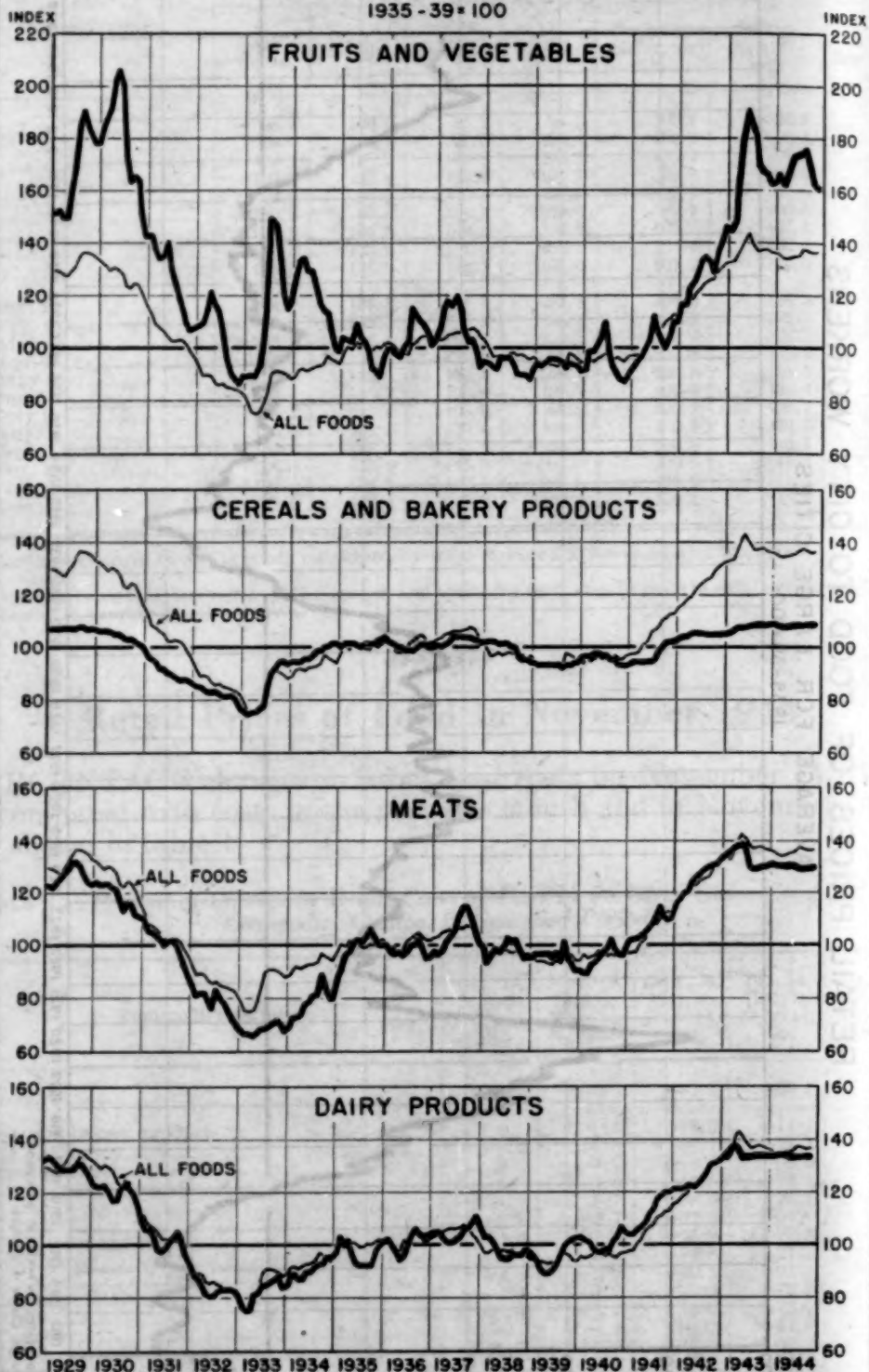
<sup>1</sup> The number of cities included in the index was changed from 51 to 56 in March 1943, with the necessary adjustments for maintaining comparability. At the same time the number of foods in the index was increased from 54 to 61.

RETAIL PRICES OF FOOD TO CITY WORKERS  
AVERAGE FOR LARGE CITIES  
1935-39=100



UNITED STATES DEPARTMENT OF LABOR  
BUREAU OF LABOR STATISTICS

RETAIL PRICES FOR GROUPS OF FOOD  
AVERAGE FOR LARGE CITIES  
1935-39=100



UNITED STATES DEPARTMENT OF LABOR  
BUREAU OF LABOR STATISTICS



TABLE 2.—*Indexes of Retail Costs of Food in 56<sup>1</sup> Large Cities Combined,<sup>2</sup> by Commodity Groups, on Specified Dates*

[1935-39=100]

Commodity group	1944		1943	1942	1941	1939
	Nov. 14	Oct. 17	Nov. 16	Sept. 15	Jan. 14	Aug. 15
All foods.....	136.5	136.4	137.3	126.6	97.8	93.5
Cereals and bakery products.....	108.6	108.6	108.3	105.4	94.9	93.4
Meats.....	129.7	129.4	130.4	130.6	101.1	95.7
Beef and veal.....	118.2	118.2	119.0	126.0	109.4	99.6
Pork.....	112.2	112.2	113.3	124.0	86.1	88.0
Lamb.....	134.5	134.7	133.5	133.7	98.7	98.8
Chickens.....	150.4	149.9	146.5	133.7	97.2	94.6
Fish, fresh and canned.....	210.3	205.8	223.6	168.2	118.7	99.6
Dairy products.....	133.6	133.6	133.6	127.7	105.1	93.1
Eggs.....	186.7	179.0	190.8	155.2	97.4	90.7
Fruits and vegetables.....	160.7	162.9	162.6	129.7	93.3	92.4
Fresh.....	167.6	170.4	170.1	130.3	93.4	92.8
Canned.....	129.6	129.7	129.9	123.8	91.4	91.6
Dried.....	166.5	165.7	162.5	143.4	99.6	90.3
Beverages.....	124.3	124.3	124.8	123.8	90.9	94.9
Fats and oils.....	123.2	123.1	125.0	120.7	80.3	84.5
Sugar and sweets.....	126.5	126.4	126.6	127.0	95.3	95.6

<sup>1</sup> Indexes based on 51 cities combined prior to March 1943.<sup>2</sup> Aggregate costs of 61 foods (54 foods prior to March 1943) in each city, weighted to represent total purchases of families of wage earners and lower-salaried workers, have been combined with the use of population weights.TABLE 3.—*Average Retail Prices of 78 Foods in 56 Large Cities Combined,<sup>1</sup> November 1944 Compared With Earlier Months*

Article	1944		1943	1941	1939
	Nov. 14	Oct. 17	Nov. 16	Jan. 14	Aug. 15
Cereals and bakery products:					
Cereals:	<i>Cents</i>	<i>Cents</i>	<i>Cents</i>	<i>Cents</i>	<i>Cents</i>
Flour, wheat.....10 pounds.....	64.2	64.1	63.0	41.4	35.8
Macaroni.....pound.....	15.8	15.7	15.6	13.8	14.0
Wheat cereal <sup>1</sup> .....28 ounces.....	23.2	23.2	23.3	23.5	24.2
Corn flakes.....8 ounces.....	6.5	6.5	6.6	7.1	7.0
Corn meal.....pound.....	6.4	6.4	5.9	4.2	4.0
Rice <sup>1</sup> .....do.....	12.7	12.8	12.8	7.9	7.5
Rolled oats.....do.....	10.2	10.1	8.7	7.1	7.1
Flour, pancake <sup>1</sup> .....20 ounces.....	12.3	12.2	11.4	( <sup>2</sup> )	( <sup>2</sup> )
Bakery products:					
Bread, white.....pound.....	8.8	8.8	8.9	7.8	7.8
Bread, whole-wheat.....do.....	9.6	9.6	9.8	8.7	8.8
Bread, rye.....do.....	9.9	9.9	10.1	9.0	9.2
Vanilla cookies.....do.....	28.2	28.2	28.4	25.1	( <sup>4</sup> )
Soda crackers.....do.....	18.9	18.9	18.7	15.0	14.8
Meats:					
Beef:					
Round steak.....do.....	40.6	40.7	41.9	38.6	36.4
Rib roast.....do.....	33.0	33.0	33.8	31.5	28.9
Chuck roast.....do.....	28.3	28.4	29.0	25.2	22.5
Stew meat <sup>1</sup> .....do.....	30.6	30.6	31.3	( <sup>2</sup> )	( <sup>2</sup> )
Liver.....do.....	37.3	37.3	36.9	( <sup>2</sup> )	( <sup>2</sup> )
Hamburger.....do.....	27.5	27.5	28.5	( <sup>2</sup> )	( <sup>2</sup> )
Veal:					
Cutlets.....do.....	44.6	44.6	45.9	45.2	42.5
Roast, boned and rolled <sup>1</sup> .....do.....	36.0	35.9	36.2	( <sup>2</sup> )	( <sup>2</sup> )
Pork:					
Chops.....do.....	37.3	37.2	37.7	29.1	30.9
Bacon, sliced.....do.....	40.8	40.9	41.5	30.1	30.4
Ham, sliced.....do.....	50.1	50.0	51.7	45.1	46.4
Ham, whole.....do.....	35.2	35.2	35.8	26.2	27.4
Salt pork.....do.....	22.1	22.3	22.8	16.7	15.4
Liver <sup>1</sup> .....do.....	22.0	22.0	22.2	( <sup>2</sup> )	( <sup>2</sup> )
Sausage <sup>1</sup> .....do.....	38.4	38.5	38.5	( <sup>2</sup> )	( <sup>2</sup> )
Bologna, big <sup>1</sup> .....do.....	34.0	34.2	34.5	( <sup>2</sup> )	( <sup>2</sup> )
Lamb:					
Leg.....do.....	39.9	39.9	40.2	27.8	27.6
Rib chops.....do.....	45.3	45.2	45.3	35.0	36.7

See footnotes at end of table.

TABLE 3.—Average Retail Prices of 78 Foods in 56 Large Cities Combined,<sup>1</sup> November 1944 Compared with Earlier Months—Continued

Article	1944		1943	1941	1939
	Nov. 14	Oct. 17	Nov. 16	Jan. 14	Aug. 15
<b>Meats—Continued.</b>					
Poultry: Roasting chickens.....pound..	45.0	44.9	44.0	31.1	30.9
<b>Fish:</b>					
Fish (fresh, frozen).....do.....	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )
Salmon, pink.....16-oz. can..	22.9	23.0	23.5	15.7	12.8
Salmon, red.....do.....	41.5	40.9	41.2	26.4	23.1
<b>Dairy products:</b>					
Butter.....pound..	49.8	49.9	50.3	38.0	30.7
Cheese.....do.....	36.2	36.1	35.9	27.0	24.7
Milk, fresh (delivered).....quart..	15.6	15.6	15.6	13.0	12.0
Milk, fresh (store).....do.....	14.5	14.5	14.4	11.9	11.0
Milk, evaporated.....14½-oz. can..	10.0	10.0	10.0	7.1	6.7
Eggs: Eggs, fresh.....dozen..	66.3	63.5	67.4	34.9	32.0
<b>Fruits and vegetables:</b>					
<b>Fresh fruits:</b>					
Apples.....pound..	10.3	9.8	10.2	5.2	4.4
Bananas.....do.....	11.2	11.1	12.2	6.6	6.1
Oranges.....dozen..	46.0	49.6	45.7	27.3	31.5
Grapefruit.....each..	8.6	9.2	9.4	( <sup>3</sup> )	( <sup>3</sup> )
<b>Fresh vegetables:</b>					
Beans, green.....pound..	20.2	14.7	18.5	14.0	7.2
Cabbage.....do.....	4.7	4.7	4.5	3.4	3.9
Carrots.....bunch..	9.0	8.9	9.8	6.0	4.6
Lettuce.....head..	10.9	12.2	13.0	8.4	8.4
Onions.....pound..	4.7	4.8	7.1	3.6	3.6
Potatoes.....15 pounds..	66.5	67.1	61.6	29.2	34.4
Spinach.....pound..	10.8	11.4	9.6	7.3	7.8
Sweet potatoes.....do.....	6.8	7.1	8.9	5.0	5.5
Beets.....bunch..	7.9	7.6	8.7	( <sup>3</sup> )	( <sup>3</sup> )
<b>Canned fruits:</b>					
Peaches.....No. 2½ can..	27.7	27.8	26.4	16.5	17.1
Pineapple.....do.....	27.2	27.5	27.9	20.9	21.0
Grapefruit juice.....No. 2 can..	14.4	14.4	14.4	( <sup>3</sup> )	( <sup>3</sup> )
<b>Canned vegetables:</b>					
Beans, green.....do.....	13.1	13.1	14.4	10.0	10.0
Corn.....do.....	14.7	14.6	14.2	10.7	10.4
Peas.....do.....	13.3	13.3	14.5	13.2	13.6
Tomatoes.....do.....	11.9	12.0	12.3	8.4	8.6
Soup, vegetable.....11-oz. can..	13.4	13.4	12.9	( <sup>3</sup> )	( <sup>3</sup> )
Dried fruits: Prunes.....pound..	16.8	17.0	16.7	9.6	8.8
<b>Dried vegetables:</b>					
Navy beans.....do.....	11.1	10.9	10.5	6.5	5.8
Soup, dehydrated, chicken noodle.....ounce..	3.7	3.7	3.7	( <sup>3</sup> )	( <sup>3</sup> )
<b>Beverages:</b>					
Coffee.....pound..	30.3	30.3	29.8	20.7	22.3
Tea.....14 pound..	24.0	23.9	23.6	17.6	17.2
Cocoa.....½ pound..	10.4	10.4	9.5	9.1	8.6
<b>Fats and oils:</b>					
Lard.....pound..	18.8	18.7	18.9	9.3	9.9
Shortening other than lard—					
In cartons.....do.....	20.2	20.2	20.0	11.3	11.7
In other containers.....do.....	24.9	24.8	24.9	18.3	20.2
Salad dressing.....pint..	25.8	25.7	25.4	20.1	( <sup>3</sup> )
Oleomargarine.....pound..	24.1	24.1	24.0	15.6	16.5
Peanut butter.....do.....	28.4	28.4	31.0	17.9	17.9
Oil, cooking or salad.....pint..	30.7	30.7	30.7	( <sup>3</sup> )	( <sup>3</sup> )
<b>Sugar and sweets:</b>					
Sugar.....pound..	6.7	6.7	6.8	5.1	5.2
Corn sirup.....24 ounces..	15.8	15.8	15.9	13.6	13.7
Molasses.....18 ounces..	15.9	15.7	15.9	13.4	13.6
Apple butter.....16 ounces..	13.6	13.7	13.2	( <sup>3</sup> )	( <sup>3</sup> )

<sup>1</sup> Data are based on 51 cities combined prior to January 1943.<sup>2</sup> Not included in index.<sup>3</sup> First priced, February 1943.<sup>4</sup> Not priced.<sup>5</sup> Composite price not computed.<sup>6</sup> First priced, October 1941.

TABLE 4.—Indexes of Average Retail Costs of All Foods, by Cities,<sup>1</sup> on Specified Dates

[1935-39=100]

City and regional area	1944		1943	1941	1939
	Nov. 14	Oct. 17	Nov. 16	Jan. 14	Aug. 15
United States.....	136.5	136.4	137.3	97.8	93.5
New England:					
Boston.....	131.8	131.1	131.4	95.2	93.5
Bridgeport.....	134.5	135.4	136.7	96.5	93.2
Fall River.....	131.6	131.2	133.2	97.5	95.4
Manchester.....	133.6	133.4	133.8	96.6	94.9
New Haven.....	135.2	135.7	137.1	95.7	93.7
Portland, Maine.....	133.2	133.8	134.5	95.3	95.9
Providence.....	135.6	134.6	136.2	96.3	93.7
Middle Atlantic:					
Buffalo.....	133.4	134.7	137.8	100.2	94.5
Newark.....	139.1	138.8	139.5	98.8	95.6
New York.....	137.4	137.2	139.3	99.5	95.8
Philadelphia.....	133.3	133.5	135.4	95.0	93.0
Pittsburgh.....	134.7	136.6	138.0	98.0	92.5
Rochester.....	132.4	132.5	132.4	99.9	92.3
Scranton.....	136.3	138.1	137.0	97.5	92.1
East North Central:					
Chicago.....	135.8	135.8	133.9	98.2	92.3
Cincinnati.....	134.4	133.4	134.9	96.5	90.4
Cleveland.....	142.6	141.9	143.1	99.2	93.6
Columbus, Ohio.....	129.0	128.7	131.7	93.4	88.1
Detroit.....	132.3	132.8	133.3	97.0	90.6
Indianapolis.....	133.1	132.7	134.0	98.2	90.7
Milwaukee.....	135.2	135.7	134.0	95.9	91.1
Peoria.....	140.2	139.9	141.5	99.0	93.4
Springfield, Ill.....	141.9	141.1	140.9	96.2	94.1
West North Central:					
Cedar Rapids <sup>2</sup> .....	139.6	138.8	139.0	95.9	-----
Kansas City.....	130.3	129.7	132.7	92.4	91.5
Minneapolis.....	130.0	130.4	132.2	99.0	95.0
Omaha.....	130.3	130.0	131.8	97.9	92.3
St. Louis.....	138.5	138.0	138.7	99.2	93.8
St. Paul.....	128.3	128.3	131.3	98.6	94.3
Wichita <sup>2</sup> .....	147.2	146.8	146.7	97.2	-----
South Atlantic:					
Atlanta.....	137.9	136.9	137.5	94.3	92.5
Baltimore.....	144.3	142.0	142.4	97.9	94.7
Charleston, S. C.....	134.7	134.5	134.8	95.9	95.1
Jacksonville.....	145.9	146.1	144.9	98.8	95.8
Norfolk <sup>2</sup> .....	142.0	140.8	144.8	95.8	93.6
Richmond.....	135.7	134.7	136.5	93.7	92.2
Savannah.....	150.6	150.9	150.4	100.5	96.7
Washington, D. C.....	136.7	134.7	137.5	97.7	94.1
Winston-Salem <sup>2</sup> .....	138.0	137.6	138.2	93.7	-----
East South Central:					
Birmingham.....	141.3	139.5	141.7	96.0	90.7
Jackson <sup>2</sup> .....	150.2	149.3	145.8	105.3	-----
Knoxville <sup>2</sup> .....	156.8	156.3	158.2	97.1	-----
Louisville.....	131.0	131.0	134.2	95.5	92.1
Memphis.....	144.9	144.9	143.9	94.2	89.7
Mobile.....	145.0	145.4	145.4	97.9	95.5
West South Central:					
Dallas.....	132.7	131.9	136.0	92.6	91.7
Houston.....	134.6	136.6	137.3	102.6	97.8
Little Rock.....	136.3	135.4	134.5	95.6	94.0
New Orleans.....	149.7	150.7	149.9	101.9	97.6
Mountain:					
Butte.....	133.5	133.1	136.9	98.7	94.1
Denver.....	136.4	136.2	136.8	94.8	92.7
Salt Lake City.....	141.1	141.3	142.6	97.5	94.6
Pacific:					
Los Angeles.....	143.3	143.0	144.4	101.8	94.6
Portland, Oreg.....	146.8	146.5	145.0	101.7	96.1
San Francisco.....	146.3	145.2	143.7	99.6	93.8
Seattle.....	142.7	143.3	143.6	101.0	94.5

<sup>1</sup> Aggregate costs of 61 foods in each city (54 foods prior to March 1943), weighted to represent total purchases of wage earners and lower-salaried workers, have been combined for the United States with the use of population weights. Primary use is for time-to-time comparisons, rather than place-to-place comparisons.

<sup>2</sup> June 1940=100.

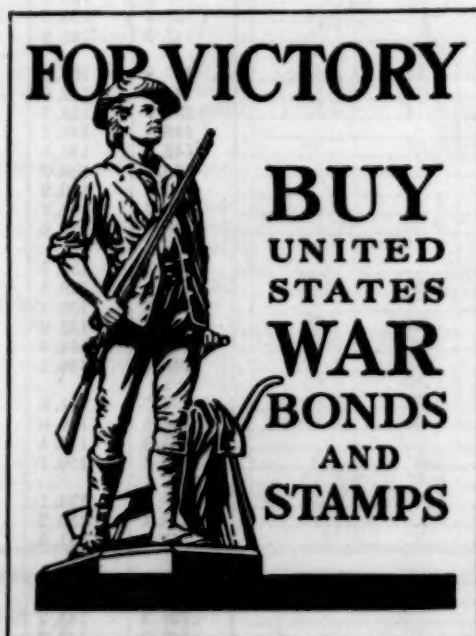
<sup>3</sup> Includes Portsmouth and Newport News.



TABLE 5.—Indexes of Retail Food Costs in 56 Large Cities Combined,<sup>1</sup> 1913 to November 1944

[1935-39=100]

Year	All-foods index	Year and month	All-foods index	Year and month	All-foods index
1913.....	79.9	1933.....	84.1	1943	
1914.....	81.8	1934.....	93.7	August.....	137.2
1915.....	80.9	1935.....	100.4	September.....	137.4
1916.....	90.8	1936.....	101.3	October.....	138.2
1917.....	116.9	1937.....	105.3	November.....	137.3
1918.....	134.4	1938.....	97.8	December.....	137.1
1919.....	149.8	1939.....	95.2		
1920.....	168.8	1940.....	96.6	1944	
1921.....	128.3	1941.....	105.5	January.....	136.1
1922.....	119.9	1942.....	123.9	February.....	134.5
1923.....	124.0	1943.....	138.0	March.....	134.1
1924.....	122.8			April.....	134.6
1925.....	132.9	1943		May.....	135.5
1926.....	137.4	January.....	133.0	June.....	135.7
1927.....	132.3	February.....	133.6	July.....	137.4
1928.....	130.8	March.....	137.4	August.....	137.7
1929.....	132.5	April.....	140.6	September.....	137.0
1930.....	126.0	May.....	143.0	October.....	136.4
1931.....	103.9	June.....	141.9	November.....	136.5
1932.....	86.5	July.....	139.0		

<sup>1</sup> Indexes based on 51 cities combined prior to March 1943.

## Wholesale Prices

### Wholesale Prices, December and Year 1944

THE upward movement in commodity prices at the primary market level which began shortly after the outbreak of World War II continued through 1944. The rate of increase, however, slackened appreciably during the past year, attesting to the success of the stabilization program.

From August 1939, when average prices for the 889 price series included in the Bureau of Labor Statistics index were 25 percent below their 1926 level, to the end of 1944, prices for these commodities rose nearly 39 percent. During the first full year of war the increase amounted to nearly 2 percent and for the second year it was 11 percent. After the attack on Pearl Harbor, prices advanced more rapidly, or 13 percent in 1942. Steps were taken to control the markets and prevent runaway prices soon after the United States became a belligerent. The effectiveness of these controls is indicated in the following statement which shows that in 1943 prices for all commodities rose only 4.4 percent and in 1944 they advanced less than 1 percent, as compared to 13 percent in 1942.

	Percent of increase
1939 to 1940-----	1.9
1940 to 1941-----	11.1
1941 to 1942-----	13.2
1942 to 1943-----	4.4
1943 to 1944-----	.9

Prices for most commodities moved within a very narrow range, if at all, between 1943 and 1944. Nearly all the important increases were the result of Government action in allowing higher prices to cover increased costs to stimulate production or in levying higher excise taxes.

The sharpest increases took place in industrial commodity markets. Building materials rose 3.7 percent during 1944 and chemicals and allied products advanced 3.6 percent. Upward adjustments in ceiling prices for lumber, brick, and cement accounted for most of the increase in building materials prices, although paint and paint materials also rose 2.8 percent. The advance in the chemicals and allied products group was the result of higher taxes on alcohol.

Increased ceiling prices for coal, coke, and petroleum products in certain areas caused the fuel and lighting materials group index to rise 2.7 percent between 1943 and 1944.

Prices for housefurnishing goods averaged 1.6 percent higher in 1944 than for the preceding year. Increased prices for furniture early in the year were responsible for this advance.

The index for the miscellaneous commodities group rose 1.5 percent in 1944, as a result of higher prices for cattle feed, paper and pulp, and certain tobacco products.

A minor increase, 1 percent, occurred in average prices for textile products, largely because of increased prices of cotton goods brought about by the Stabilization Extension Act. Burlap prices also advanced during the year.

Except for an increase of 9 percent in the grain markets, prices for agricultural commodities and their products were generally lower in 1944 than in 1943. Livestock and poultry declined over 3 percent; meats, nearly 4 percent; hides and skins, more than 4 percent; and dairy products, 0.5 percent.

Average prices for foods dropped 1.6 percent in 1944. In addition to lower prices for meats and dairy products, egg prices were appreciably lower. Cereal products, on the contrary, advanced 1.2 percent, reflecting the rise in grain prices.

Farm products prices at the primary market level rose 0.6 percent from 1943 to 1944 as a result of the increase in the grain markets, notwithstanding the decrease of over 3 percent for livestock and poultry.

During the year, raw materials prices rose 1 percent; semimanufactured commodities, 1.3 percent; and manufactured products, 0.7 percent.

Table 1 presents index numbers of wholesale prices and percentage changes by groups and subgroups of commodities for 1944, 1943, and August 1939.

TABLE 1.—*Index Numbers of Wholesale Prices and Percentage Changes, by Groups and Subgroups of Commodities, for 1944, 1943, and August 1939*

[1926=100]

Group and subgroup	Index, year 1944	Index, year 1943	Percent of change	Index, August 1939	Percent of increase
All commodities.....	104.0	103.1	+0.9	75.0	38.7
Farm products.....	123.3	122.6	+0.6	61.0	102.1
Grains.....	126.9	116.3	+9.1	51.5	146.4
Livestock and poultry.....	124.6	128.7	-3.2	66.0	88.8
Other farm products.....	120.7	119.8	+0.8	60.1	100.8
Foods.....	104.9	106.6	-1.6	67.2	56.1
Dairy products.....	110.5	111.1	-0.5	67.9	62.7
Cereal products.....	94.8	93.7	+1.2	71.9	31.8
Fruits and vegetables.....	121.3	121.3	0	58.5	107.4
Meats.....	106.1	110.3	-3.8	73.7	44.0
Other foods.....	95.0	97.3	-2.4	60.3	57.5
Hides and leather products.....	116.7	117.5	-0.7	92.7	25.9
Shoes.....	126.3	126.4	-0.1	100.8	25.3
Hides and skins.....	109.9	114.7	-4.2	77.2	42.4
Leather.....	101.3	101.3	0	84.0	20.6
Other leather products.....	115.2	115.2	0	97.1	18.6
Textile products.....	98.4	97.4	+1.0	67.8	45.1
Clothing.....	107.1	107.0	+0.1	81.5	31.4
Cotton goods.....	115.7	112.7	+2.7	65.5	76.6
Hosiery and underwear.....	70.9	70.8	+0.1	61.5	15.3
Rayon.....	30.2	30.3	-0.3	28.5	6.0
Silk.....	(1)	(1)		44.3	
Woolen and worsted goods.....	112.7	112.5	+0.2	75.5	49.3
Other textile products.....	100.6	98.8	+1.8	63.7	57.9
Fuel and lighting.....	83.0	80.8	+2.7	72.6	14.3
Anthracite.....	95.6	90.4	+5.8	72.1	32.6
Bituminous coal.....	120.3	116.1	+3.6	96.0	25.3
Coke.....	130.3	122.7	+6.2	104.2	25.0
Electricity.....	(1)	59.5		75.8	
Gas.....	(1)	76.5		86.7	
Petroleum and products.....	63.9	62.5	+2.2	51.7	23.4

See footnotes at end of table.



TABLE 1.—Index Numbers of Wholesale Prices and Percentage Changes, by Groups and Subgroups of Commodities, for 1944, 1943, and August 1939—Continued

[1926=100]

Group and subgroup	Index, year 1944	Index, year 1943	Percent of change	Index, August 1939	Percent of increase
Metals and metal products.....	103.8	103.8	0	93.2	11.4
Agricultural implements.....	97.3	96.9	+4	93.5	4.1
Farm machinery.....	98.4	98.0	+4	94.7	3.9
Iron and steel.....	97.2	97.2	0	95.1	2.2
Motor vehicles.....	112.8	112.8	0	92.5	21.9
Nonferrous metals.....	85.8	86.0	-.2	74.6	15.0
Plumbing and heating.....	92.2	90.7	+1.7	79.3	16.3
Building materials.....	115.5	111.4	+3.7	89.6	28.9
Brick and tile.....	101.7	99.1	+2.6	90.5	12.4
Cement.....	95.8	93.8	+2.1	91.3	4.9
Lumber.....	152.7	141.3	+8.1	90.1	69.5
Paint and paint materials.....	105.2	102.3	+2.8	82.1	28.1
Plumbing and heating.....	92.2	90.7	+1.7	79.3	16.3
Structural steel.....	107.3	107.3	0	107.3	0
Other building materials.....	103.1	102.0	+1.1	89.5	15.2
Chemicals and allied products.....	103.9	100.3	+3.6	74.2	40.0
Chemicals.....	96.1	96.5	-.4	83.8	14.7
Drugs and pharmaceuticals.....	205.4	165.2	+24.3	77.1	166.4
Fertilizer materials.....	81.3	80.0	+1.6	65.5	24.1
Mixed fertilizers.....	86.4	86.1	+.3	73.1	18.2
Oils and fats.....	102.0	101.9	+.1	40.6	151.2
Housefurnishing goods.....	104.3	102.7	+1.6	85.6	21.8
Furnishings.....	107.3	107.2	+.1	90.0	19.2
Furniture.....	101.4	98.1	+3.4	81.1	25.0
Miscellaneous.....	93.6	92.2	+1.5	73.3	27.7
Automobile tires and tubes.....	73.0	73.0	0	60.5	20.7
Cattle feed.....	159.6	152.7	+4.5	68.4	133.3
Paper and pulp.....	107.1	104.1	+2.9	80.0	33.9
Rubber, crude.....	46.2	46.2	0	34.9	32.4
Other miscellaneous.....	97.0	95.8	+1.3	81.3	19.3
Raw materials.....	113.2	112.1	+1.0	66.5	70.2
Semimanufactured articles.....	94.1	92.9	+1.3	74.5	26.3
Manufactured products.....	100.8	100.1	+.7	79.1	27.4
All commodities other than farm products.....	99.6	98.7	+.9	77.9	27.9
All commodities other than farm products and foods.....	98.5	96.9	+1.7	80.1	23.0

<sup>1</sup> Data not available.<sup>2</sup> Revised.

Index numbers of wholesale prices by groups and subgroups of commodities for selected years are shown in table 2.

TABLE 2.—Index Numbers of Wholesale Prices by Groups and Subgroups of Commodities

[1926=100]

Group and subgroup	1944	1943	1942	1941	1940	1939	1933	1929
All commodities.....	104.0	103.1	98.8	87.3	78.6	77.1	65.9	95.3
Farm products.....	123.3	122.6	105.9	82.4	67.7	65.3	51.4	104.9
Grains.....	126.9	116.3	92.9	76.9	68.0	58.6	53.1	97.4
Livestock and poultry.....	124.6	128.7	117.8	91.6	69.2	72.2	43.4	106.1
Other farm products.....	120.7	119.8	101.6	77.8	66.1	62.6	55.8	106.6
Foods.....	104.9	106.6	99.6	82.7	71.3	70.4	60.5	99.9
Dairy products.....	110.5	111.1	100.0	87.3	77.6	69.5	60.7	105.6
Cereal products.....	94.8	93.7	89.2	80.7	78.3	74.8	75.0	88.0
Fruits and vegetables.....	121.3	121.3	95.5	67.5	63.1	62.0	61.7	97.8
Meats.....	106.1	110.3	111.8	90.4	73.3	77.2	50.0	109.1
Other foods.....	95.0	97.3	92.3	78.9	63.5	64.1	61.1	93.9
Hides and leather products.....	116.7	117.5	117.7	108.3	100.8	95.6	80.9	109.1
Shoes.....	126.3	126.4	125.7	113.5	107.6	102.6	90.2	106.3
Hides and skins.....	109.9	114.7	117.6	108.4	91.9	84.6	67.1	112.7
Leather.....	101.3	101.3	101.3	97.9	92.5	87.5	71.4	113.2
Other leather products.....	115.2	115.2	114.9	104.7	99.9	97.1	81.1	106.4

TABLE 2.—Index Number of Wholesale Prices by Groups and Subgroups of Commodities—Continued

[1926=100]

Group and subgroup	1944	1943	1942	1941	1940	1939	1933	1929
Textile products.....	98.4	97.4	96.9	84.8	73.8	79.7	64.8	90.4
Clothing.....	107.1	107.0	106.9	92.6	85.2	82.0	72.2	90.0
Cotton goods.....	115.7	112.7	112.4	94.2	71.4	67.2	71.2	98.8
Hosiery and underwear.....	70.9	70.8	70.5	63.1	62.3	61.4	58.9	88.5
Rayon.....	30.2	30.3	30.3	29.5	29.5	28.8	33.0	68.4
Silk.....	(1)	(1)	(1)	(1)	46.8	46.1	29.8	82.7
Woolen and worsted goods.....	112.7	112.5	110.4	96.6	85.7	79.8	69.3	88.3
Other textile products.....	100.6	98.8	97.9	90.7	74.5	69.2	72.5	93.1
Fuel and lighting materials.....	83.0	80.8	78.5	76.2	71.7	73.1	66.3	83.0
Anthracite.....	95.6	90.4	85.5	82.7	78.9	75.8	82.2	90.1
Bituminous coal.....	120.3	116.1	109.7	104.3	97.6	97.5	82.8	91.3
Coke.....	130.3	122.7	122.1	119.3	110.2	105.6	77.9	84.6
Electricity.....	(1)	59.5	63.8	68.3	74.5	78.6	94.3	94.5
Gas.....	(1)	76.5	78.4	78.6	82.0	84.1	97.5	93.1
Petroleum and products.....	63.9	62.5	59.8	57.0	50.0	52.2	41.0	71.3
Metals and metal products.....	103.8	103.8	103.8	99.4	95.8	94.4	79.8	100.5
Agricultural implements.....	97.3	96.9	96.9	93.5	92.5	93.4	83.5	98.7
Farm machinery.....	98.4	98.0	98.0	94.5	93.7	94.6	87.7	98.0
Iron and steel.....	97.2	97.2	97.2	96.4	95.1	95.8	78.6	94.9
Motor vehicles.....	112.8	112.8	112.7	103.3	96.7	93.4	83.2	100.0
Nonferrous metals.....	85.8	86.0	85.7	84.4	81.3	78.0	59.6	106.1
Plumbing and heating.....	92.2	90.7	95.4	84.8	80.4	79.2	67.1	95.0
Building materials.....	115.5	111.4	110.2	103.2	94.8	90.5	77.0	95.4
Brick and tile.....	101.7	99.1	98.0	93.7	90.5	91.4	79.2	94.3
Cement.....	95.8	93.8	94.0	92.0	90.8	91.3	88.1	89.0
Lumber.....	152.7	141.3	133.0	122.5	102.9	93.2	70.7	93.8
Paint and paint materials.....	105.2	102.3	100.3	91.4	85.7	82.8	73.3	94.9
Plumbing and heating.....	92.2	90.7	95.4	84.8	80.4	79.2	67.1	95.0
Structural steel.....	107.3	107.3	107.3	107.3	107.3	107.3	83.1	98.1
Other building materials.....	103.1	102.0	103.5	98.3	93.3	90.3	82.7	97.7
Chemicals and allied products.....	103.9	100.3	97.1	84.6	77.0	76.0	72.1	94.0
Chemicals.....	96.1	96.5	96.2	87.2	85.1	84.7	86.8	99.7
Drugs and pharmaceuticals.....	205.4	165.2	133.8	105.1	88.9	78.2	54.6	66.8
Fertilizer materials.....	81.3	80.0	78.7	73.5	69.4	67.9	62.9	95.6
Mixed fertilizers.....	86.4	86.1	82.7	76.0	73.8	73.0	64.0	95.2
Oils and fats.....	102.0	101.9	105.1	77.6	44.3	48.4	39.4	89.0
Housefurnishing goods.....	104.3	102.7	102.4	94.3	88.5	86.3	75.8	94.3
Furnishings.....	107.3	107.2	107.3	99.9	94.7	91.1	76.6	93.6
Furniture.....	101.4	98.1	97.4	88.4	81.8	81.3	75.1	95.0
Miscellaneous.....	93.6	92.2	89.7	82.0	77.3	74.8	62.5	82.6
Automobile tires and tubes.....	73.0	73.0	72.5	61.0	57.8	59.5	42.1	54.5
Cattle feed.....	159.6	152.7	134.4	101.2	87.8	83.3	57.9	121.6
Paper and pulp.....	107.1	104.1	100.8	98.2	91.7	82.4	76.6	88.9
Rubber, crude.....	46.2	46.2	46.3	46.1	41.5	37.2	12.2	42.3
Other miscellaneous.....	97.0	95.8	93.4	87.8	84.1	82.6	76.2	98.4
Raw materials.....	113.2	112.1	100.6	83.5	71.9	70.2	56.5	97.5
Semimanufactured articles.....	94.1	92.9	92.6	86.9	79.1	77.0	65.4	93.9
Manufactured products.....	100.8	100.1	98.6	89.1	81.6	80.4	70.5	94.5
All commodities other than farm products.....	99.6	98.7	97.0	88.3	80.8	79.5	69.0	93.3
All commodities other than farm products and foods.....	98.5	96.9	95.5	89.9	83.0	81.3	71.2	91.6

<sup>1</sup> Data not available.*Wholesale Prices by Groups of Commodities in December 1944*

Although there were relatively few changes in primary commodity markets during December, particularly in industrial commodities, higher prices for certain agricultural products and hides and skins resulted in a rise of 0.3 percent in the Bureau of Labor Statistics all-commodity index of nearly 900 price series, bringing it to 104.7 percent of the 1926 average, the highest level reached in nearly 24 years. In the past 12 months the all-commodity index has risen 1.5 percent to a point 39.6 percent higher than in August 1939.

*Farm products.*—Led by rising grain markets and higher quotations for cows, hogs and sheep, cotton and wool, hay, eggs, apples, onions,

and potatoes, average prices for farm products rose nearly 1 percent between November and December to the highest point since June 1943. All grains except barley advanced, ranging from less than 2 percent for wheat to more than 6 percent for oats. Barley prices declined slightly. Decreases of over 3 percent for steers and 0.4 percent for calves caused average prices for livestock and poultry to drop 0.1 percent. Lower prices were also reported for oranges and dried beans and for tobacco. Under Government support and heavy demand, prices for farm products have risen more than 105 percent from the low levels which prevailed during the summer of 1939. From the outbreak of the war until December 1944, grain prices rose nearly 148 percent and livestock and poultry prices advanced more than 92 percent.

*Foods.*—Seasonally higher prices for fruits and vegetables and eggs were largely responsible for an increase during December of 0.4 percent in average prices for foods at the primary market level. Sharp increases were reported for potatoes and apples in most markets and for canned cherries. Fresh beef and dressed poultry at New York advanced slightly from November to December and flour prices were generally higher. Except for lower prices for oatmeal, oranges, and dried beans, there were no important foods for which prices declined during the month.

There have been no major changes in food prices during the past 12 months. Declines of 2.6 percent for fruits and vegetables and 0.4 percent for cereal products accounted for an over-all decrease of 0.1 percent in the foods group index from December 1943 to December 1944. Increases of less than one-half of 1 percent were recorded in prices for dairy products and meats.

Average prices for food have advanced 57 percent from August 1939, with fruits and vegetables nearly 99 percent higher; dairy products, 63 percent; meats, 44 percent; and cereal products, about 32 percent.

*Hides and leather products.*—Average prices for hides and leather products rose 1 percent in December as a result of higher prices for sheepskins and goatskins. The shearling market became depressed late in the year when it was expected that the Government would market its large surplus. However, upon an announcement that excess stocks would be made into coats for shipment abroad, market prices rose sharply. No changes were reported in prices for leather, shoes, and other leather products during December. Largely as a result of the increase in sheepskin prices, the index for hides and leather products as a group was 0.3 percent higher than in December 1943.

In the more than 5 years of war, prices for hides and leather products rose over 26 percent. Hides and skins advanced nearly 48 percent; shoes, over 25 percent; and leather, more than 20 percent.

*Textile products.*—Except for an increase of 0.3 percent for cotton goods, which brought the textile products index up 0.1 percent, prices for this group of commodities were steady in December. Supplies for civilian consumption, particularly in cotton goods lines, became increasingly scarce.

During 1944 prices for textile products advanced 1.8 percent. Most of this increase was attributable to an advance of 5.6 percent in cotton goods, brought about by the Stabilization Extension Act. Clothing, mostly men's and boys', and woolen and worsted goods,

1929

90.4  
90.0  
98.8  
88.5  
98.4  
82.7  
88.3  
93.1

83.0  
90.1  
91.3  
84.6  
94.5  
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71.3

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94.3  
93.6  
95.0

82.6  
54.5  
121.6  
88.9  
42.3  
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1944

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averaged less than one-half of 1 percent higher than for December a year ago, while hosiery and underwear and rayon declined slightly. In December 1944, average prices for textile products as a group were nearly 47 percent higher than before the war. Cotton goods were 82 percent above the August 1939 level; woolen and worsted goods, almost 50 percent; clothing, nearly 32 percent; hosiery and underwear, over 16 percent; and rayon, only 6 percent. "Other textile products," including such important war materials as hard fibers, rope, and bur-lap, advanced 58 percent since August 1939.

*Fuel and lighting materials.*—No changes were reported in prices for fuel and lighting materials during December. Shortages of coal developed in certain northwestern areas because of transportation difficulties and increased demand.

In the year 1944, prices for fuel and lighting materials rose 1.2 percent, largely as a result of OPA action in granting higher ceiling prices for coal and coke, and for crude petroleum in certain areas, to cover increased costs of production.

During the more than 5 years of war, prices for crude petroleum and its products, bituminous coal, and coke have risen approximately 25 percent, while anthracite has advanced over 32 percent. Lower sales realization prices for gas and electricity, however, have held the index for the fuel and lighting materials group as a whole to 14.5 percent above the August 1939 average.

*Metals and metal products.*—The index for the metals and metal products group advanced 0.1 percent from November to December as a result of higher prices for scrap steel and mercury. Supplies of scrap steel became tight during the latter part of the year and prices returned to ceiling levels, following the buyers' holiday of late summer which depressed the markets. Mercury prices again rose more than 9 percent, as production dropped off and demand increased greatly.

In December 1944, average prices for metals and metal products were at exactly their level of a year ago. Minor increases in prices for agricultural implements, plumbing and heating equipment, and iron and steel were offset by a sharp break in the mercury market which by midyear had fallen almost 50 percent from its level at the beginning of the year. Consumption of mercury began to exceed production in June, prices strengthened steadily, and by the end of the year they had risen 45 percent from the year's low point.

Under the influence of Government control and with the cooperation of the industry, prices for metals and metal products have risen slightly more than 11 percent since the war began. Most of the increases occurred in prices for motor vehicles and plumbing and heating equipment. Nonferrous metals advanced 15 percent; agricultural implements, 4 percent; and iron and steel, a little over 2 percent, since August 1939.

*Building materials.*—In the building materials group a slight increase in prices for certain types of brick, brought about by an upward adjustment in ceiling prices, was offset by a minor decline for cement, with the result that the December group index remained unchanged at the November level. Over the year period average prices for building materials increased 2.6 percent, as a result of increases of 4 to 5 percent for brick and tile, cement, and lumber, and of about 3 percent for important paint materials such as turpentine and linseed oil.

Building materials prices were nearly 30 percent higher in December than in August 1939, largely because of an increase of more than 70 percent for lumber. During this period paints and paint materials advanced 29.5 percent; plumbing and heating equipment and brick and tile, over 16 percent; and cement, approximately 7 percent.

*Chemicals and allied products.*—Except for substantial declines in prices for nux vomica and ergot during December there were few changes in the chemicals and allied products markets and the index for this group remained unchanged at the November level.

Average prices for chemicals and allied products, as measured by the Bureau's index, rose 4.4 percent during 1944, largely because of higher excise taxes on alcohol. Prices for fertilizer materials and mixed fertilizers increased fractionally while a minor decline, less than 1 percent, occurred in the chemicals markets. Prices for industrial fats and oils were steady during the year.

Market prices for essential fats and oils, many of which are imported, rose sharply upon the outbreak of the war. The index for industrial fats and oils in December 1944 was 151 percent over the August 1939 average; drugs and pharmaceuticals, largely ethyl alcohol, advanced nearly 182 percent; fertilizer materials, almost 25 percent; mixed fertilizers, over 18 percent; and chemicals, 14 percent.

*Housefurnishing goods.*—Minor increases in prices for office furniture were not sufficient to affect the index for the housefurnishing goods group during December. No changes were reported in prices for furnishings.

During the 12-month period average prices of furniture in wholesale markets rose a little over 3 percent and furnishings only 0.3 percent.

When compared with their pre-war level, prices for furniture show an increase of 25 percent and furnishings 19 percent.

*Miscellaneous commodities.*—An upward adjustment in prices for boxboard, allowed to certain producers, mostly located east of the Mississippi River, together with higher prices for cigars caused the index for the miscellaneous group of commodities to rise 0.2 percent in December. Since December 1943 the index for this group advanced 1 percent, largely because of higher prices for paper and pulp and for starch and tobacco products.

Led by an increase of over 133 percent for cattle feed, the miscellaneous commodity index in December was 28.5 percent higher than before the war. During this period paper and pulp and crude rubber increased more than 30 percent, and automobile tires and tubes and other miscellaneous commodities, more than 20 percent.

Prices for raw materials averaged 0.7 percent higher in December than in November, primarily as a result of the increase in agricultural commodity markets. Average prices for semimanufactured articles and manufactured products were steady during the month. In the past year prices for raw materials and semimanufactured articles rose approximately 2 percent and manufactured products about 1 percent. Since August 1939, however, semimanufactured articles and manufactured products advanced about 27 percent, while raw material prices increased over 72 percent.

Percentage comparisons of the December 1944 level of wholesale prices with November 1944, December 1943, and August 1939, with corresponding index numbers, are given in table 3.

TABLE 3.—Indexes of Wholesale Prices by Groups and Subgroups of Commodities, December 1944, Compared with November 1944, December 1943, and August 1939

Group and subgroup	[1926=100]						
	December 1944	November 1944	Percent of change	December 1943	Percent of change	August 1939	Percent of change
All commodities.....	104.7	104.4	+0.3	103.2	+1.5	75.0	+39.6
Farm products.....	125.5	124.4	+9	121.8	+3.0	61.0	+105.7
Grains.....	127.5	124.8	+2.2	128.2	-.5	51.5	+147.6
Livestock and poultry.....	126.9	127.0	-.1	119.5	+6.2	66.0	+92.3
Other farm products.....	123.2	121.8	+1.1	120.6	+2.2	60.1	+105.0
Foods.....	105.5	105.1	+4	105.6	-.1	67.2	+57.0
Dairy products.....	110.7	110.7	0	110.6	+1	67.9	+63.0
Cereal products.....	94.7	94.7	0	95.1	-.4	71.9	+31.7
Fruits and vegetables.....	116.2	113.7	+2.2	119.3	-2.6	58.5	+98.6
Meats.....	106.2	106.1	+1	105.9	+3	73.7	+44.1
Other foods.....	99.7	99.3	+4	98.5	+1.2	60.3	+65.3
Hides and leather products.....	117.4	116.2	+1.0	117.0	+3	92.7	+26.6
Shoes.....	126.3	126.3	0	126.4	-.1	100.8	+25.3
Hides and skins.....	114.0	107.1	+6.4	111.6	+2.2	77.2	+47.7
Leather.....	101.3	101.3	0	101.3	0	84.0	+20.6
Other leather products.....	115.2	115.2	0	115.2	0	97.1	+18.6
Textile products.....	99.5	99.4	+1	97.7	+1.8	67.8	+46.8
Clothing.....	107.4	107.4	0	107.0	+4	81.5	+31.8
Cotton goods.....	119.2	118.8	+3	112.9	+5.6	65.5	+82.0
Hosiery and underwear.....	71.5	71.5	0	71.7	-.3	61.5	+16.3
Rayon.....	30.2	30.2	0	30.3	-.3	28.5	+6.0
Silk.....	(1)	(1)	(1)	(1)	(1)	44.3	(1)
Woolen and worsted goods.....	112.9	112.9	0	112.5	+4	75.5	+49.5
Other textile products.....	100.9	100.9	0	100.5	+4	63.7	+58.4
Fuel and lighting materials.....	83.1	83.1	0	82.1	+1.2	72.6	+14.5
Anthracite.....	95.3	95.3	0	95.0	+3	72.1	+32.2
Bituminous coal.....	120.5	120.5	0	118.8	+1.4	96.0	+25.5
Coke.....	130.7	130.7	0	124.5	+6.0	104.2	+25.4
Electricity.....	(1)	(1)	(1)	58.7	(1)	75.8	(1)
Gas.....	(1)	77.3	(1)	77.0	(1)	86.7	(1)
Petroleum and products.....	63.8	63.8	0	63.5	+5	51.7	+23.4
Metals and metal products.....	103.8	103.7	+1	103.8	0	93.2	+11.4
Agricultural implements.....	97.5	97.5	0	96.9	+6	93.5	+4.3
Farm machinery.....	98.7	98.7	0	98.1	+6	94.7	+4.2
Iron and steel.....	97.2	97.1	+1	97.1	-.1	95.1	+2.2
Motor vehicles.....	112.8	112.8	0	112.8	0	92.5	+21.9
Nonferrous metals.....	85.8	85.8	0	86.0	-.2	74.6	+15.0
Plumbing and heating.....	92.4	92.4	0	91.8	+7	79.3	+16.5
Building materials.....	116.4	116.4	0	113.4	+2.6	89.6	+29.9
Brick and tile.....	105.3	105.0	+3	100.0	+5.3	90.5	+16.4
Cement.....	97.5	97.7	-.2	93.6	+4.2	91.3	+6.8
Lumber.....	153.8	153.8	0	147.5	+4.3	90.1	+70.7
Paint and paint materials.....	106.3	106.3	0	103.3	+2.9	82.1	+29.5
Plumbing and heating.....	92.4	92.4	0	91.8	+7	79.3	+16.5
Structural steel.....	107.3	107.3	0	107.3	0	107.3	0
Other building materials.....	103.3	103.3	0	102.8	+5	89.5	+15.4
Chemicals and allied products.....	104.8	104.8	0	100.4	+4.4	74.2	+41.2
Chemicals.....	95.6	95.5	+1	96.3	-.7	83.8	+14.1
Drugs and pharmaceuticals.....	217.2	217.2	0	165.2	+31.5	77.1	+181.7
Fertilizer materials.....	81.8	81.8	0	81.3	+6	65.5	+24.9
Mixed fertilizers.....	86.6	86.6	0	86.5	+1	73.1	+18.5
Oils and fats.....	102.0	102.0	0	102.0	0	40.6	+151.2
Housefurnishing goods.....	104.4	104.4	0	102.8	+1.6	85.6	+22.0
Furnishings.....	107.4	107.4	0	107.1	+3	90.0	+19.3
Furniture.....	101.5	101.5	0	98.4	+3.2	81.1	+25.2
Miscellaneous.....	94.2	94.0	+2	93.3	+1.0	73.3	+28.5
Automobile tires and tubes.....	73.0	73.0	0	73.0	0	60.5	+20.7
Cattle feed.....	159.6	159.6	0	159.6	0	68.4	+133.3
Paper and pulp.....	107.3	107.2	+1	106.0	+1.2	80.0	+34.1
Rubber, crude.....	46.2	46.2	0	46.2	0	34.9	+32.4
Other miscellaneous.....	98.2	97.8	+4	96.7	+1.6	81.3	+20.8
Raw materials.....	114.6	113.8	+7	112.1	+2.2	66.5	+72.3
Semimanufactured articles.....	94.8	94.8	0	93.1	+1.8	74.5	+27.2
Manufactured products.....	101.1	101.1	0	100.2	+9	79.1	+27.8
All commodities other than farm products.....	100.0	99.9	+1	99.0	+1.0	77.9	+28.4
All commodities other than farm products and foods.....	98.9	98.8	+1	97.6	+1.3	80.1	+23.5

1 Data not available.



### Index Numbers by Commodity Groups, 1926 to December, 1944

Index numbers of wholesale prices by commodity groups for selected years from 1926 to 1943, and by months from December 1943 to December 1944, are shown in table 4.

TABLE 4.—Index Numbers of Wholesale Prices by Groups of Commodities

(1926=100)

Year and month	Farm products	Foods	Hides and leather products	Textile products	Fuel and lighting materials	Metals and metal products	Building materials	Chemicals and allied products	House-furnishing goods	Miscellaneous	All commodities
1926.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1929.....	104.9	99.9	109.1	90.4	83.0	100.5	95.4	94.0	94.3	82.6	95.3
1932.....	48.2	61.0	72.9	54.9	70.3	80.2	71.4	73.9	75.1	64.4	64.8
1933.....	51.4	60.5	80.9	64.8	66.3	79.8	77.0	72.1	75.8	62.5	65.9
1936.....	80.9	82.1	95.4	71.5	76.2	87.0	86.7	78.7	81.7	70.5	80.8
1937.....	86.4	85.5	104.6	76.3	77.6	95.7	95.2	82.6	89.7	77.8	86.3
1938.....	68.5	73.6	92.8	66.7	76.5	95.7	90.3	77.0	86.8	73.3	78.6
1939.....	65.3	70.4	95.6	69.7	73.1	94.4	90.5	76.0	86.3	74.8	77.1
1940.....	67.7	71.3	100.8	73.8	71.7	95.8	94.8	77.0	88.5	77.3	78.6
1941.....	82.4	82.7	108.3	84.8	76.2	99.4	103.2	84.6	94.3	82.0	87.3
1942.....	105.9	99.6	117.7	96.9	78.5	103.8	110.2	97.1	102.4	89.7	98.8
1943.....	122.6	106.6	117.5	97.4	80.8	103.8	111.4	100.3	102.7	92.2	103.1
1944.....	123.3	104.9	116.7	98.4	83.0	103.8	115.5	103.9	104.3	93.6	104.0
<b>1943</b>											
December.....	121.8	105.6	117.0	97.7	82.1	103.8	113.4	100.4	102.8	93.3	103.2
<b>1944</b>											
January.....	121.8	104.9	117.2	97.7	82.3	103.7	113.5	100.4	104.5	93.2	103.3
February.....	122.5	104.5	116.9	97.7	83.1	103.7	113.6	100.4	104.2	93.4	103.6
March.....	123.6	104.6	116.9	97.8	83.0	103.7	114.2	100.4	104.3	93.5	103.8
April.....	123.2	104.9	116.9	97.8	83.0	103.7	115.2	105.4	104.3	93.5	103.9
May.....	122.9	105.0	117.0	97.8	83.2	103.7	115.7	105.4	104.3	93.5	104.0
June.....	125.0	106.5	116.4	97.8	83.3	103.7	115.9	105.2	104.3	93.5	104.3
July.....	124.1	105.8	116.2	98.0	83.2	103.7	115.9	105.3	104.3	93.6	104.1
August.....	122.6	104.8	116.0	98.4	83.2	103.8	116.0	105.3	104.4	93.6	103.9
September.....	122.7	104.2	116.0	99.2	83.0	103.8	116.0	104.9	104.4	93.6	104.0
October.....	123.4	104.2	116.2	99.4	82.9	103.7	116.3	105.0	104.4	93.6	104.1
November.....	124.4	105.1	116.2	99.4	83.1	103.7	116.4	104.8	104.4	94.0	104.4
December.....	125.5	105.5	117.4	99.5	83.1	103.8	116.4	104.8	104.4	94.2	104.7

The price trend for specified years and months since 1926 is shown in table 5 for the following groups of commodities: Raw materials, semimanufactured articles, manufactured products, commodities other than farm products, and commodities other than farm products and foods. The list of commodities included under the classifications "Raw materials," "Semimanufactured articles," and "Manufactured products" was shown on pages 10 and 11 of Wholesale Prices, July-December and Year 1943 (Bulletin No. 785).

TABLE 5.—Index Numbers of Wholesale Prices by Special Groups of Commodities

[1926=100]

Year and month	Raw materials	Semi-manufactured articles	Manufactured products	All commodities other than farm products	All commodities other than farm products and foods	Year and month	Raw materials	Semi-manufactured articles	Manufactured products	All commodities other than farm products	All commodities other than farm products and foods
1926.....	100.0	100.0	100.0	100.0	100.0	1943					
1929.....	97.5	93.9	94.5	93.3	91.6	December.....	112.1	93.1	100.2	99.0	97.6
1932.....	55.1	59.3	70.3	68.3	70.2	1944					
1933.....	56.5	65.4	70.5	69.0	71.2	January.....	112.2	93.2	100.2	99.1	97.8
1936.....	79.9	75.9	82.0	80.7	79.6	February.....	112.8	93.4	100.4	99.3	98.0
1937.....	84.8	85.3	87.2	86.2	85.3	March.....	113.4	93.7	100.5	99.3	98.1
1938.....	72.0	75.4	82.2	80.6	81.7	April.....	113.2	93.6	100.8	99.6	98.4
1939.....	70.2	77.0	80.4	79.5	81.3	May.....	113.0	93.7	100.9	99.7	98.5
1940.....	71.9	79.1	81.6	80.8	83.0	June.....	114.2	93.8	100.9	99.6	98.5
1941.....	83.5	86.9	89.1	88.3	89.0	July.....	113.6	93.9	100.9	99.6	98.5
1942.....	100.6	92.6	98.6	97.0	95.5	August.....	112.7	94.1	100.9	99.7	98.6
1943.....	112.1	92.9	100.1	98.7	96.9	September.....	112.8	94.7	100.9	99.7	98.6
1944.....	113.2	94.1	100.8	99.6	98.5	October.....	113.2	94.8	101.0	99.8	98.7
						November.....	113.8	94.8	101.1	99.9	98.8
						December.....	114.6	94.8	101.1	100.0	98.9

## Weekly Fluctuations

Weekly changes in wholesale prices by groups of commodities during November and December 1944 are shown by the index numbers in table 6. These indexes are not averaged to obtain an index for the month but are computed only to indicate the fluctuations from week to week.

TABLE 6.—Weekly Index Numbers of Wholesale Prices by Commodity Groups, November and December 1944

[1926=100]

Commodity group	December 30	December 23	December 16	December 9	December 2	November 25	November 18	November 11	November 4
All commodities.....	104.7	104.6	104.4	104.2	104.2	104.1	104.1	104.1	104.0
Farm products.....	126.7	126.2	125.6	124.4	124.6	124.1	124.5	124.4	124.0
Foods.....	105.5	105.7	105.7	105.4	105.1	105.0	104.9	104.9	104.4
Hides and leather products.....	117.9	116.7	116.7	116.7	116.7	116.7	116.7	116.7	116.7
Textile products.....	99.0	99.0	98.9	98.9	98.9	98.9	98.9	98.9	98.9
Fuel and lighting materials.....	83.6	83.7	83.7	83.7	83.7	83.6	83.6	83.5	83.5
Metals and metal products.....	103.9	103.9	103.9	103.9	103.9	103.9	103.8	103.8	103.8
Building materials.....	116.4	116.4	116.4	116.4	116.4	116.4	116.4	116.4	116.4
Chemicals and allied products.....	104.8	104.8	104.8	104.8	104.8	104.8	104.8	104.7	104.7
Housefurnishing goods.....	106.1	106.1	106.1	106.1	106.1	106.1	106.1	106.1	106.1
Miscellaneous.....	93.9	93.9	93.9	93.9	93.7	93.5	93.4	93.4	93.4
Raw materials.....	115.7	115.4	115.1	114.3	114.4	114.1	114.3	114.3	114.0
Semimanufactured articles.....	94.7	94.7	94.7	94.7	94.7	94.7	94.7	94.7	94.7
Manufactured products.....	101.3	101.3	101.3	101.3	101.3	101.2	101.2	101.1	101.1
All commodities other than farm products.....	99.8	99.8	99.8	99.8	99.8	99.7	99.7	99.7	99.6
All commodities other than farm products and foods.....	99.1	99.0	99.0	99.0	99.0	98.9	98.9	98.8	98.8

## Labor Turnover

### Labor Turnover in Manufacturing, Mining, and Public Utilities, November 1944

FOR each 1,000 workers on factory pay rolls in November, 60 either changed jobs or left manufacturing work. Quits represented three-fourths of all separations, discharges and lay-offs each accounted for 10 percent, and the remaining 5 percent resigned for military and miscellaneous reasons.

The quit rate for manufacturing as a whole, 45 per 1,000, was slightly below that of last month, but on the same level with that of 1 year ago. For the second consecutive month, the rate of quits in all major manufacturing groups continued to decline. While there were fewer workers who voluntarily left their jobs in the selected war industries group, as compared with all manufacturing, the discharge rate was slightly higher. Reports from firms indicated that absenteeism among war workers was the main cause for discharges.

Five out of the 20 major manufacturing groups had a higher lay-off rate than the average for all manufacturing. The lumber and furniture groups reported the highest rate of lay-offs, their rates being 16 and 14 per 1,000, respectively. Bad weather conditions which prohibited outdoor work in the sawmill regions, plus a material shortage in the planing mills, accounted for the high rate of lay-offs in the lumber group. Lay-offs in the furniture group were occasioned by cutbacks in plants which are producing plastic turrets as a wartime expediency but whose major activity is the production of furniture. Recent revision of production and operating schedules for the aircraft-parts industry was the primary reason for the laying off of 10 per 1,000 workers in the transportation-equipment group.

Total separation rates for anthracite and bituminous-coal mining were considerably below the rate for all manufacturing, while that for the metal-mining group was only slightly below the manufacturing level. Although the total separation rate in iron mining was no higher than that in the other metal-mining industries, iron mines reported the extremely high lay-off rate of 24 per 1,000 workers, reflecting the partial shut-down of mines around the Great Lakes region.

The total separation rate for women was considerably higher than that for men in each of the 7 major manufacturing groups. However, the accession rate for women was insufficient to offset the separation rate; while for men the reverse held true, indicating a net increase in the total number of men.



TABLE 1.—Monthly Labor Turnover Rates (per 100 Employees) in Manufacturing<sup>1</sup>

Class of turnover and year	January	February	March	April	May	June	July	August	September	October	November	December
<b>Total separation</b>												
1944	6.7	6.6	7.4	6.8	7.1	7.1	6.6	7.8	7.6	6.4	<sup>2</sup> 6.0	
1943	7.1	7.1	7.7	7.5	6.7	7.1	7.6	8.3	8.1	7.0	6.4	6.6
1939	3.2	2.6	3.1	3.5	3.5	3.3	3.3	3.0	2.8	2.9	3.0	3.5
<b>Quit:</b>												
1944	4.6	4.6	5.0	4.9	5.3	5.4	5.0	6.2	6.1	5.0	<sup>2</sup> 4.5	
1943	4.5	4.7	5.4	5.4	4.8	5.2	5.6	6.3	6.3	5.2	4.5	4.4
1939	.9	.6	.8	.8	.7	.7	.7	.8	1.1	.9	.8	.7
<b>Discharge:</b>												
1944	.7	.6	.7	.6	.6	.7	.7	.7	.6	.6	1.6	
1943	.5	.5	.6	.5	.6	.6	.7	.7	.6	.6	.6	.6
1939	.1	.1	.1	.1	.1	.1	.1	.1	.1	.2	.2	.1
<b>Lay-off:<sup>3</sup></b>												
1944	.8	.8	.9	.6	.5	.5	.5	.5	.6	.5	1.6	
1943	.7	.5	.5	.6	.5	.5	.5	.5	.5	.5	.7	1.0
1939	2.2	1.9	2.2	2.6	2.7	2.5	2.5	2.1	1.6	1.8	2.0	2.7
<b>Military and miscellaneous:<sup>4</sup></b>												
1944	.6	.6	.8	.7	.7	.5	.4	.4	.3	.3	1.3	
1943	1.4	1.4	1.2	1.0	.8	.8	.8	.8	.7	.7	.6	.6
<b>Accession:</b>												
1944	6.5	5.5	5.8	5.5	6.4	7.6	6.3	6.3	6.1	6.0	<sup>2</sup> 5.9	
1943	8.3	7.9	8.3	7.4	7.2	8.4	7.8	7.6	7.7	7.2	6.6	5.2
1939	4.1	3.1	3.3	2.9	3.3	3.9	4.2	5.1	6.2	5.9	4.1	2.8

<sup>1</sup> Month-to-month employment changes as indicated by labor-turnover rates are not precisely comparable to those shown by the Bureau's employment and pay-roll reports, as the former are based on data for the entire month while the latter refer, for the most part, to a 1-week period ending nearest the middle of the month. In addition, labor-turnover data, beginning in January 1943, refer to all employees, whereas the employment and pay-roll reports relate only to wage earners. The labor-turnover sample is not so extensive as that of the employment and pay-roll survey—proportionately fewer small plants are included; printing and publishing and certain seasonal industries, such as canning and preserving, are not covered.

<sup>2</sup> Preliminary.

<sup>3</sup> Including temporary, indeterminate, and permanent lay-offs.

<sup>4</sup> Miscellaneous separations comprise not more than 0.1 in these figures. In 1939 these data were included with quits.

TABLE 2.—Monthly Labor Turnover Rates (per 100 Employees) in Selected Groups and Industries,<sup>1</sup> November 1944

[Asterisks identify selected war industries]

Group and industry	Total separation		Quit		Discharge		Lay-off		Military and miscellaneous		Total accession	
	Nov. 1944 <sup>2</sup>	Oct. 1944	Nov. 1944 <sup>2</sup>	Oct. 1944	Nov. 1944 <sup>2</sup>	Oct. 1944	Nov. 1944 <sup>2</sup>	Oct. 1944	Nov. 1944 <sup>2</sup>	Oct. 1944	Nov. 1944 <sup>2</sup>	Oct. 1944
<b>Manufacturing</b>												
Selected war industries group <sup>3</sup>	6.1	6.7	4.2	4.7	0.9	0.9	0.7	0.8	0.3	0.3	5.8	5.6
Ordnance	6.8	8.1	5.1	5.9	.8	.9	.7	1.0	.2	.3	8.8	8.1
*Guns, howitzers, mortars, and related equipment	6.0	9.3	3.5	4.1	.6	.7	1.6	4.2	.3	.3	6.4	5.3
*Ammunition, except for small arms	8.1	9.0	6.2	7.1	1.0	1.1	.7	.5	.2	.3	10.5	10.0
*Tanks	5.6	6.9	4.1	5.5	.7	.8	.6	.4	.2	.2	6.9	6.6
*Sighting and fire-control equipment	2.4	2.8	1.8	2.0	.4	.3	.1	.2	.1	.3	3.5	3.0
Iron and steel and their products	4.6	4.9	3.4	3.7	.4	.4	.5	.5	.3	.3	4.3	4.2
*Blast furnaces, steel works, and rolling mills	3.1	3.3	2.4	2.7	.2	.2	.2	.2	.3	.2	2.8	2.7
*Gray-iron castings	7.2	7.6	5.8	6.3	.9	.7	.2	.3	.3	.3	8.4	8.4
*Malleable-iron castings	6.2	5.4	4.6	4.5	.7	.5	.5	.2	.4	.2	6.1	5.5
*Steel castings	7.0	6.5	5.5	5.1	.8	.7	.4	.3	.3	.4	7.1	5.8
*Cast-iron pipe and fittings	3.9	5.2	3.2	4.0	.3	.3	.1	.4	.3	.5	5.9	5.3
Tin cans and other tinware	11.1	13.1	7.7	9.7	1.9	1.9	1.2	1.2	.3	.3	9.0	10.9
Wire products	2.8	4.3	2.1	2.7	.3	.4	.2	.9	.2	.3	3.2	3.8
Cutlery and edge tools	6.2	7.2	5.5	6.7	.5	.2	.1	.1	.1	.2	7.2	10.7
Tools (except edge tools, machine tools, files, and saws)	5.2	5.2	3.6	3.8	.8	.8	.4	.2	.4	.4	5.3	6.1

See footnotes at end of table.

TABLE 2.—Monthly Labor Turnover Rates (per 100 Employees) in Selected Groups and Industries,<sup>1</sup> November 1944—Continued

[Asterisks identify selected war industries]

Group and industry	Total separation		Quit		Discharge		Lay-off		Military and miscellaneous		Total accession	
	Nov. 1944 <sup>2</sup>	Oct. 1944	Nov. 1944 <sup>2</sup>	Oct. 1944	Nov. 1944 <sup>2</sup>	Oct. 1944	Nov. 1944 <sup>2</sup>	Oct. 1944	Nov. 1944 <sup>2</sup>	Oct. 1944	Nov. 1944 <sup>2</sup>	Oct. 1944
<b>Manufacturing—Continued</b>												
Iron and steel and their products—Con.												
Hardware	4.0	4.2	3.3	3.5	0.4	0.3	0.1	0.1	0.2	0.3	5.0	4.2
Stoves, oil burners, and heating equipment	8.4	7.5	6.5	5.9	1.3	1.1	.3	.2	.3	.3	10.1	9.7
Steam and hot-water heating apparatus and steam fittings	4.6	4.6	3.4	3.2	.3	.6	.5	.4	.4	.4	3.7	3.7
Stamped and enameled ware and galvanizing	6.9	8.0	5.8	6.5	.6	.7	.3	.5	.2	.3	7.1	8.0
Fabricated structural-metal products	7.0	9.1	5.0	6.0	.7	1.1	1.1	1.7	.2	.3	6.4	6.6
Bolts, nuts, washers, and rivets	5.2	5.2	2.8	3.3	.4	.5	1.7	1.2	.3	.2	3.5	3.5
Forgings, iron and steel	4.4	4.4	3.4	3.3	.5	.4	.2	.4	.3	.3	3.9	3.7
*Firearms (60 caliber and under)	6.4	7.3	2.9	3.7	.6	.8	2.7	2.5	.2	.3	4.3	4.4
Electrical machinery	4.6	5.2	3.4	3.9	.5	.6	.4	.4	.3	.3	3.7	4.2
*Electrical equipment for industrial use	3.8	4.3	2.9	3.2	.3	.4	.3	.4	.3	.3	2.8	3.2
*Radios, radio equipment, and phonographs	5.9	6.0	4.2	4.4	.9	.9	.5	.4	.3	.3	4.5	5.1
*Communication equipment, except radios	3.6	4.4	2.8	3.4	.3	.5	.2	.2	.3	.3	3.2	4.0
Machinery, except electrical	4.1	4.6	2.8	3.3	.6	.6	.4	.4	.3	.3	3.9	3.9
*Engines and turbines	4.7	5.9	3.0	3.7	.7	.7	.7	1.2	.3	.3	4.7	4.0
Agricultural machinery and tractors	4.5	4.5	3.5	3.6	.5	.4	.1	.1	.4	.4	5.0	4.4
*Machine tools	2.7	3.2	1.8	2.1	.4	.5	.3	.4	.2	.2	3.0	2.8
*Machine-tool accessories	3.8	3.9	2.3	2.5	.8	.6	.4	.6	.3	.2	3.0	3.5
*Metalworking machinery and equipment, not elsewhere classified	3.3	3.6	2.1	2.6	.6	.6	.3	.1	.3	.3	3.6	3.9
*General industrial machinery, except pumps	4.6	4.8	3.1	3.5	.6	.6	.6	.4	.3	.3	3.9	3.9
*Pumps and pumping equipment	4.0	4.4	3.1	3.4	.6	.6	(1)	.1	.3	.3	4.5	4.4
Transportation equipment, except automobiles	7.2	7.7	4.8	5.3	1.1	1.2	1.0	.9	.3	.3	6.5	6.2
*Aircraft	5.6	6.2	4.3	4.8	.6	.6	.4	.5	.3	.3	5.2	4.8
*Aircraft parts	5.6	6.5	3.2	4.0	.5	.7	1.7	1.6	.2	.2	4.0	4.1
*Shipbuilding and repairs	9.3	9.5	6.1	6.4	1.9	1.8	.9	.9	.4	.4	9.1	8.4
Automobiles	5.3	5.6	3.9	4.2	.8	.8	.3	.3	.3	.3	6.6	7.2
Motor vehicles, bodies, and trailers	4.9	5.0	3.4	3.6	.7	.8	.6	.3	.2	.3	6.3	6.3
Motor-vehicle parts and accessories	5.5	6.1	4.1	4.7	.9	.8	.2	.3	.3	.3	6.7	7.7
Nonferrous metals and their products	6.5	7.2	3.8	4.7	.5	.6	.9	1.5	.3	.4	5.1	5.2
*Primary smelting and refining, except aluminum and magnesium	2.9	3.8	2.4	3.0	.1	.2	.1	.2	.3	.4	2.8	2.7
*Aluminum and magnesium smelting and refining	10.9	14.1	5.8	7.3	.4	.5	4.2	5.7	.5	.6	6.1	5.6
*Rolling and drawing of copper and copper alloys	4.1	4.1	3.3	3.3	.4	.4	.2	.2	.2	.2	4.4	4.2
*Aluminum and magnesium products	5.4	8.0	3.6	4.9	.6	.7	.8	2.0	.4	.4	5.1	5.4
Lighting equipment	7.4	7.0	6.0	5.3	.7	1.0	.5	.4	.2	.3	8.4	8.7
*Nonferrous-metal foundries, except aluminum and magnesium	6.1	7.9	4.6	5.6	.4	.7	.8	1.4	.3	.2	6.2	6.1
Lumber and timber basic products	9.6	9.2	7.4	8.0	.4	.4	1.6	.5	.2	.3	8.5	8.5
Sawmills	8.9	8.9	7.2	7.8	.3	.4	1.1	.4	.3	.3	8.4	8.4
Planing and plywood mills	7.7	7.7	4.8	6.4	.6	.5	2.0	.4	.3	.4	6.4	6.6
Furniture and finished lumber products	8.9	9.4	6.8	8.0	.5	.6	1.4	.6	.2	.2	8.3	8.8
Furniture, including mattresses and bedsprings	7.8	9.4	6.6	8.1	.6	.6	.4	.5	.2	.2	8.6	9.5
Stone, clay, and glass products	4.3	5.1	3.4	3.8	.3	.3	.3	.7	.3	.3	4.8	4.8
Glass and glass products	4.5	5.7	3.4	3.6	.4	.4	.4	1.3	.3	.4	4.9	5.7
Cement	3.5	3.4	2.4	2.4	.2	.2	.6	.6	.3	.2	3.6	3.0
Brick, tile, and terra cotta	4.9	5.4	4.0	4.5	.2	.3	.4	.4	.3	.2	4.8	5.7
Pottery and related products	4.9	5.9	4.0	5.1	.2	.2	.4	.3	.3	.3	4.7	4.8

See footnotes at end of table.

TABLE 2.—*Monthly Labor Turnover Rates (per 100 Employees) in Selected Groups and Industries,<sup>1</sup> November 1944—Continued*

[Asterisks identify selected war industries]

Group and industry	Total separation		Quit		Discharge		Lay-off		Military and miscellaneous		Total accession	
	Nov. 1944 <sup>2</sup>	Oct. 1944	Nov. 1944 <sup>2</sup>	Oct. 1944	Nov. 1944 <sup>2</sup>	Oct. 1944	Nov. 1944 <sup>2</sup>	Oct. 1944	Nov. 1944 <sup>2</sup>	Oct. 1944	Nov. 1944 <sup>2</sup>	Oct. 1944
<i>Manufacturing—Continued</i>												
Textile-mill products.....	5.4	5.9	4.7	5.0	0.3	0.4	0.2	0.3	0.2	0.2	5.8	5.7
Cotton.....	6.4	6.8	5.7	5.9	.4	.4	.1	.3	.2	.2	7.1	6.8
Silk and rayon goods.....	5.7	6.1	4.9	5.3	.5	.5	.1	.1	.2	.2	6.4	6.4
Woolen and worsted, except dyeing and finishing.....	3.9	3.9	2.9	3.1	.2	.2	.5	.4	.3	.2	3.9	3.6
Hosiery, full-fashioned.....	3.6	3.9	3.3	3.6	.1	.1	.1	.1	.1	.1	3.1	3.2
Hosiery, seamless.....	4.6	5.5	4.0	5.0	.2	.2	.3	.2	.1	.1	4.8	5.3
Knitted underwear.....	4.5	4.8	4.1	4.4	.3	.2	( <sup>3</sup> )	.1	.1	.1	4.8	4.3
Dyeing and finishing textiles, including woolen and worsted.....	3.8	4.1	2.8	2.8	.5	.5	.3	.5	.2	.3	4.1	3.8
Apparel and other finished textile products.....	5.4	5.4	4.5	4.9	.2	.2	.6	.2	.1	.1	4.7	5.5
Men's and boys' suits, coats, and overcoats.....	4.0	4.0	3.4	3.5	.1	.1	.4	.3	.1	.1	3.7	4.1
Men's and boys' furnishings, work clothing, and allied garments.....	5.7	5.6	5.0	5.2	.2	.2	.4	.1	.1	.1	4.1	5.5
Leather and leather products.....	4.9	5.9	4.4	5.2	.2	.3	.1	.2	.2	.2	5.4	5.7
Leather.....	3.7	4.6	3.0	3.8	.4	.2	.1	.3	.2	.3	4.4	4.2
Boots and shoes.....	5.2	6.2	4.7	5.5	.2	.3	.1	.2	.2	.2	5.6	6.0
Food and kindred products.....	7.9	9.0	7.0	7.9	.5	.5	.2	.3	.2	.3	9.3	9.1
Meat products.....	7.6	8.8	6.6	7.6	.5	.4	.2	.5	.3	.3	9.3	8.1
Grain-mill products.....	10.1	9.4	9.1	8.4	.6	.7	.2	.1	.2	.2	10.2	9.6
Tobacco manufactures.....	5.6	7.5	5.1	6.9	.2	.3	.2	.1	.1	.2	6.1	8.4
Paper and allied products.....	5.5	6.4	4.6	5.5	.4	.4	.2	.2	.3	.3	6.3	6.7
Paper and pulp.....	4.9	6.1	4.1	5.1	.3	.4	.2	.2	.3	.4	5.8	6.2
Paper boxes.....	7.2	8.1	6.1	7.0	.7	.6	.1	.2	.3	.3	8.3	8.8
Chemicals and allied products.....	4.6	5.0	3.5	3.9	.6	.6	.3	.2	.2	.3	5.3	5.5
Paints, varnishes, and colors.....	3.2	4.0	2.5	3.2	.5	.3	( <sup>4</sup> )	.3	.2	.2	3.3	3.7
Rayon and allied products.....	3.3	4.3	2.8	3.5	.2	.3	.1	.2	.2	.3	3.5	4.4
*Industrial chemicals, except explosives.....	4.0	4.4	3.0	3.3	.6	.6	.1	.2	.3	.3	3.9	4.1
*Explosives.....	6.8	6.5	5.3	5.2	1.0	.8	.1	.1	.4	.4	8.4	9.5
*Small-arms ammunition.....	4.9	5.1	3.4	4.0	.7	.7	.2	.2	.1	.2	6.6	5.5
Products of petroleum and coal.....	2.7	3.2	2.0	2.5	.2	.3	.2	.2	.3	.2	2.9	3.2
Petroleum refining.....	2.6	3.1	2.0	2.4	.2	.3	.2	.2	.2	.2	2.8	3.1
Rubber products.....	5.5	6.1	4.5	5.1	.4	.5	.3	.2	.3	.3	5.7	5.7
Rubber tires and inner tubes.....	5.6	6.1	4.6	5.3	.4	.4	.3	.1	.3	.3	6.0	5.6
Rubber footwear and related products.....	4.7	6.5	4.1	5.7	.3	.5	.1	.1	.2	.2	6.8	6.7
Miscellaneous rubber industries.....	5.6	5.8	4.5	4.8	.4	.5	.4	.2	.3	.3	5.0	5.4
Miscellaneous industries.....	4.4	5.1	3.2	3.8	.5	.5	.5	.5	.2	.3	3.9	4.3
<i>Nonmanufacturing</i>												
Metal mining.....	5.5	6.0	3.6	4.4	.4	.4	1.0	.6	.5	.6	4.0	3.6
Iron-ore.....	5.3	4.5	2.2	2.7	.1	.3	2.4	1.0	.6	.5	1.3	1.7
Copper-ore.....	5.3	6.7	4.2	5.2	.4	.4	.2	.3	.5	.8	5.4	4.7
Lead- and zinc-ore.....	5.2	6.6	4.4	5.7	.3	.5	.1	( <sup>4</sup> )	.4	.4	5.2	4.8
Metal mining, not elsewhere classified, including aluminum-ore.....	6.9	8.0	4.8	5.9	.7	.8	1.1	.9	.3	.4	5.8	4.5
Coal mining:												
Anthracite mining.....	1.8	1.6	1.3	1.3	( <sup>4</sup> )	( <sup>4</sup> )	.3	.1	.2	.2	1.2	1.1
Bituminous-coal mining.....	3.6	3.9	3.1	3.4	.2	.2	.1	.1	.2	.2	3.4	3.4
Public utilities:												
Telephone.....	2.5	3.3	2.2	2.9	.1	.1	.1	.1	.1	.2	2.5	3.1
Telegraph.....	3.0	3.5	2.7	3.2	.1	.1	.1	.1	.1	.1	3.1	3.5

<sup>1</sup> Since January 1943, manufacturing firms reporting labor turnover have been assigned industry codes on the basis of current products. Most plants in the employment and pay-roll sample, comprising those which were in operation in 1939, are classified according to their major activity at that time, regardless of any subsequent change in major products.

<sup>2</sup> Preliminary figures.

<sup>3</sup> Simple average of selected war industries, identified by \* before the industry name.

<sup>4</sup> Less than 0.05.



TABLE 3.—*Monthly Labor Turnover Rates (Per 100 Employees)<sup>1</sup> for Men and Women in Selected Industries Engaged in War Production, November 1944<sup>2</sup>*

Group and industry	Total separation		Quit		Total accession	
	Men	Women	Men	Women	Men	Women
All manufacturing.....	5.3	7.6	3.9	6.1	5.6	7.1
Ordnance.....	5.7	8.7	3.9	7.0	7.7	10.4
Guns, howitzers, mortars, and related equipment.....	4.8	10.0	2.9	5.8	5.7	9.2
Ammunition, except for small arms.....	7.0	9.3	4.9	7.7	9.7	11.5
Tanks.....	4.9	7.4	3.5	6.1	6.2	7.2
Sighting and fire-control equipment.....	1.8	3.4	1.3	2.7	2.9	4.8
Iron and steel and their products.....	3.8	8.2	2.9	6.0	3.9	6.5
Blast furnaces, steel works, and rolling mills.....	2.7	7.0	2.1	5.6	2.6	5.1
Gray-iron castings.....	6.7	7.1	5.3	5.8	7.9	7.7
Malleable-iron castings.....	5.8	8.6	4.6	4.5	6.1	5.9
Steel castings.....	7.1	7.6	5.5	5.7	7.0	8.4
Cast-iron pipe and fittings.....	3.8	4.7	3.2	3.1	5.9	6.0
Firearms (60 caliber and under).....	5.0	11.3	2.4	4.0	3.4	6.5
Electrical machinery.....	3.6	5.9	2.5	4.5	3.1	4.5
Electrical equipment for industrial use.....	2.9	5.5	2.1	4.4	2.0	4.2
Radios, radio equipment, and phonographs.....	4.7	6.8	3.1	5.1	3.8	5.1
Communication equipment, except radios.....	2.9	4.3	2.0	3.5	2.7	3.7
Machinery, except electrical.....	2.6	6.1	2.4	4.6	3.7	4.6
Engines and turbines.....	3.9	7.1	2.6	4.4	4.3	5.7
Machine tools.....	2.4	5.0	1.5	3.6	2.8	4.6
Machine-tool accessories.....	3.2	5.6	1.9	3.7	2.8	3.6
Metalworking machinery and equipment, not elsewhere classified.....	3.0	4.4	1.9	3.3	3.2	5.2
General industrial machinery, except pumps.....	4.0	6.4	2.5	5.0	3.8	4.0
Pumps and pumping equipment.....	3.3	6.3	2.6	4.9	4.3	5.0
Transportation equipment, except automobiles.....	6.5	8.6	4.3	6.1	6.2	7.3
Aircraft.....	4.5	7.0	3.3	5.8	4.2	6.8
Aircraft parts.....	4.3	8.2	2.6	4.3	3.5	5.2
Shipbuilding and repairs.....	8.8	12.3	5.8	8.7	8.8	10.6
Nonferrous metals and their products.....	5.1	7.2	3.3	5.3	4.6	6.7
Primary smelting and refining, except aluminum and magnesium.....	2.7	6.6	2.2	5.4	2.6	4.3
Aluminum and magnesium smelting and refining.....	10.7	12.7	5.5	8.1	6.1	5.5
Rolling and drawing of copper and copper alloys.....	3.5	6.2	2.7	5.5	3.7	6.7
Aluminum and magnesium products.....	5.0	6.9	3.3	4.6	4.8	6.4
Nonferrous-metal foundries, except aluminum and magnesium.....	5.0	8.5	3.8	6.3	5.5	7.9
Chemicals and allied products.....	4.0	5.9	2.9	4.8	4.8	6.4
Industrial chemicals, except explosives.....	3.7	5.2	2.7	4.0	3.8	4.3
Explosives.....	5.8	9.0	4.5	7.4	7.7	10.2
Small-arms ammunition.....	4.2	6.0	2.5	4.5	5.8	7.4

<sup>1</sup> These figures are presented to show comparative turnover rates and should not be used to estimate employment.

<sup>2</sup> Data are preliminary.

## Building Construction

### Building Construction in Urban Areas, December and Year 1944

THE value of non-Federal building construction started in urban areas of the United States during the calendar year 1944 was 7 percent above 1943. Federal building dropped 43 percent, however, causing the value of all building started to decrease from 1.3 to 1.1 billion dollars.

The increase by nearly a third in the value of additions, alterations, and repairs in 1944 was more than offset by a net decline of about 42 and 7 percent, respectively, in new residential and new nonresidential values. Additions, alterations, and repairs rose on both Federally and non-Federally financed projects and new residential work decreased on both types. In the case of new nonresidential building, however, the 27-percent decrease in Federal work was in contrast to a 60-percent increase on other projects.

TABLE 1.—*Value of Building Construction in All Urban Areas, by Class of Construction, 1943 and 1944*

Class of construction	Value (in thousands of dollars)					
	Total construction			Federal construction		
	1944 <sup>1</sup>	1943	Per- cent of change	1944 <sup>1</sup>	1943	Per- cent of change
All construction.....	1,086,203	1,280,176	-15.7	331,577	585,486	-43.4
New residential.....	342,239	586,531	-41.7	54,047	211,363	-74.4
New nonresidential.....	430,227	463,458	-7.2	250,291	356,805	-27.3
Additions, alterations, and repairs.....	313,737	239,187	+31.2	18,239	17,318	+5.3

<sup>1</sup> Preliminary. Subject to revision upon receipt of late reports for December 1944.

About 113,000 new urban dwelling units were constructed in 1944, 47 percent less than in 1943. Whereas the number of Federally financed dwelling units declined almost four-fifths, the privately financed declined only slightly over one-fifth.

TABLE 2.—*Number and Value of New Dwelling Units in All Urban Areas, by Source of Funds and Type of Dwelling, 1943 and 1944*

Source of funds and type of dwelling	Number of dwelling units			Value (in thousands)		
	1944 <sup>1</sup>	1943	Percent of change	1944 <sup>1</sup>	1943	Percent of change
All dwellings.....	112,544	210,623	-46.6	\$338,178	\$573,715	-41.1
Privately financed.....	92,725	119,714	-22.5	286,119	374,260	-23.6
1-family.....	71,298	78,750	-9.5	220,246	260,154	-15.3
2-family <sup>2</sup> .....	9,440	16,234	-41.9	30,987	45,562	-32.0
Multifamily <sup>3</sup> .....	11,987	24,730	-51.5	34,886	68,544	-49.1
Federal.....	19,819	90,909	-78.2	52,059	199,455	-73.9

<sup>1</sup> Preliminary. Subject to revision upon receipt of late reports for December 1944.

<sup>2</sup> Includes 1- and 2-family dwellings with stores.

<sup>3</sup> Includes multifamily dwellings with stores.

### *Comparison of December 1944 With November 1944 and December 1943*

Around 70 million dollars worth of building construction was started in urban areas of the United States during December, a seasonal decline of nearly a fourth below November. Both Federal and non-Federal construction values decreased in about the same proportion. New residential building showed a small net gain because of an upturn in Federal housing in the Pacific region.

While the volume of work started during December 1944 was nearly a third below the previous December, non-Federal work was only a fifth lower, principally because of the 18-percent increase in new nonresidential building.

The total of 8,185 family dwelling units for which permits were issued or Federal contracts awarded during December was 2 percent above the November total, but 43 percent below that for December 1943. Approximately three-fifths, or 4,969, were privately financed; 3,216 were in Federal war housing projects.

TABLE 3.—*Summary of Building Construction in All Urban Areas, December 1943, and November and December 1944*

Class of construction	Number of buildings			Value		
	December 1944	Percent of change from—		December 1944 (in thousands)	Percent of change from—	
		November 1944	December 1943		November 1944	December 1943
All building construction.....	36,141	-25.4	-10.9	\$69,698	-22.5	-31.7
New residential.....	7,508	+8.2	-41.1	22,254	+5	-47.0
New nonresidential.....	4,570	-34.1	+13.4	25,158	-30.7	-35.4
Additions, alterations, and repairs.....	24,063	-30.5	+1.1	22,286	-29.3	+5.4



TABLE 4.—*Number and Value of New Dwelling Units in All Urban Areas, by Source of Funds and Type of Dwelling, December 1943, and November and December 1944*

Source of funds and type of dwelling	Number of dwelling units			Value		
	December 1944	Percent of change from—		December 1944 (in thousands)	Percent of change from—	
		November 1944	December 1943		November 1944	December 1943
All dwellings.....	8,185	+2.3	-42.9	\$22,041	+0.1	-47.3
Privately financed.....	4,969	-21.9	-41.3	13,818	-21.8	-50.6
1-family.....	3,953	-19.0	-35.5	11,292	-17.0	-46.7
2-family <sup>1</sup> .....	568	-7.2	-42.8	1,391	-19.5	-51.3
Multifamily <sup>2</sup> .....	448	-48.5	-66.5	1,135	-51.3	-71.2
Federally financed.....	3,216	+96.6	-45.3	8,223	+88.5	-40.6

<sup>1</sup> Includes 1- and 2-family dwellings with stores.<sup>2</sup> Includes multifamily dwellings with stores.

### Construction from Public Funds, December 1944

The value of contracts awarded and force-account work started during November and December 1944 and December 1943 on all construction projects, excluding shipbuilding, financed wholly or partially from Federal funds and reported to the Bureau of Labor Statistics, is shown in table 5. This table includes construction both inside and outside the corporate limits of cities in urban areas of the United States.

TABLE 5.—*Value of Contracts Awarded and Force-Account Work Started on Construction Projects<sup>1</sup> Financed from Federal Funds, December 1943, and November and December 1944*

Source of funds	Value (in thousands) of contracts awarded and force-account work started in—		
	December 1944 <sup>1</sup>	November 1944 <sup>2</sup>	December 1943 <sup>2</sup>
All Federal funds.....	\$48,203	\$76,654	\$123,768
War public works.....	4,870	5,645	3,974
Regular Federal appropriations <sup>3</sup> .....	33,570	65,346	103,410
Federal Public Housing Authority.....	9,763	5,663	16,384

<sup>1</sup> Preliminary; subject to revision.<sup>2</sup> Revised.<sup>3</sup> Excludes the following amounts (in thousands) for ship construction: December 1944, \$127,750; November 1944, \$398,169; December 1943, \$579,312.

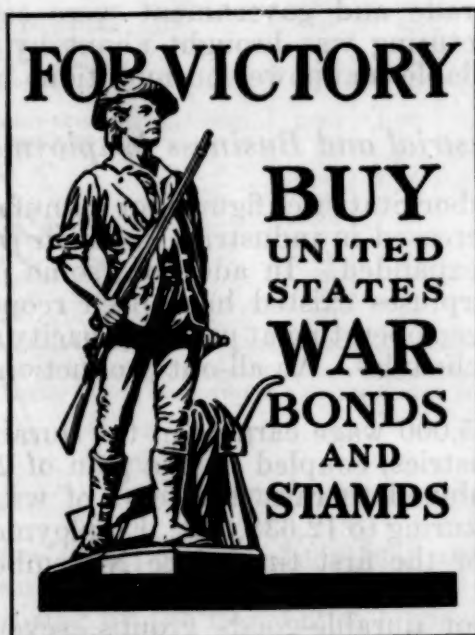
### Coverage and Method

Figures on building construction in this report cover the entire urban area of the United States which by Census definition includes all incorporated places with a 1940 population of 2,500 or more and, by special rule, a small number of unincorporated civil divisions. Valuation figures, the basis for statements concerning value, are derived from estimates of construction cost made by prospective private builders when applying for permits to build, and the value of contracts awarded by Federal and State governments. No land costs

are included. Unless otherwise indicated, only building construction within the corporate limits of cities in urban areas is included in the tabulations.

Reports of building permits which were received in December 1944 for cities containing between 80 and 85 percent of the urban population of the country provide the basis for estimating the total number of buildings and dwelling units and the valuation of private urban building construction. Similar data for Federally financed urban building construction are compiled directly from notifications of construction contracts awarded, as furnished by Federal agencies.

The contracts awarded and force-account work started on Federally financed building construction inside the corporate limits of cities in urban areas were valued at \$21,676,000 in December 1944, \$28,334,000 in November 1944, and \$42,178,000 in December 1943.



# *Trend of Employment, Earnings, and Hours*

## **Summary of Reports for December 1944**

IN DECEMBER 1944, the total number of employees in nonagricultural establishments was 38,901,000. This is 1,296,000 fewer than in December 1943, during which period there was a net addition of 1,600,000 to the armed forces, but 549,000 more than in November 1944. The increase over the month is the first since August 1944, and is the largest monthly increase in nonagricultural employment since August 1942.

Increases in employment in trade, government, and manufacturing accounted for the rise in over-all employment over the month. Expanded employment in these divisions as well as in the armed forces was made possible primarily by declines in agricultural employment. The increases in trade and government were seasonal, while the increase in manufacturing was brought about by the new drive to concentrate all available manpower on munitions production.

### *Industrial and Business Employment*

The Bureau of Labor Statistics figures for manufacturing show that employment has increased in industries in which the war production program has been expanded. In addition, some plants which were shut down when surpluses existed have been reopened, while other plants which have been operating at partial capacity are being returned to full production schedules. An all-out production program is under way.

The increase of 45,000 wage earners in the durable-goods group of manufacturing industries, coupled with a gain of 20,000 in the nondurable group, combined to raise the level of wage-earner employment in all manufacturing to 12,638,000. Employment in the durable-goods group rose for the first time since November 1943, the peak month.

Of the nine major durable-goods groups, seven employed more workers in December 1944 than in the preceding month. Increases of 10,000 or more were reported by the iron and steel, automobile, and machinery groups. Almost half of the gain of 20,000 in the iron and steel group was concentrated in the bag and shell loading, heavy-ammunition, and guns industries. The increase of 11,000 in automobiles was concentrated in plants converted to aircraft and tanks. Expanded employment in the machinery and machine-shop products industry which has large ordnance orders was primarily responsible for the rise in the machinery group.

Among the nondurable-goods groups, nine reported employment increases. The largest gain, 19,000 wage earners, was reported by



the chemicals group and was concentrated in the small-arms ammunition, explosives, rayon, and fireworks industries. The rayon industry added employment in plants producing rayon tire cord and rayon yarn for chutes.

The number of bituminous-coal miners continued to decline to a low of 336,000. The difficulty in recruiting coal miners is evidenced by the fact that employment in this industry has been declining since the last quarter of 1941.

TABLE 1.—*Estimated Number of Wage Earners and Indexes of Wage-Earner Employment in Manufacturing Industries, by Major Industry Group*<sup>1</sup>

Industry group	Estimated number of wage earners (in thousands)				Wage-earner indexes (1939=100)	
	December 1944 <sup>2</sup>	November 1944	October 1944	December 1943	December 1944 <sup>2</sup>	November 1944
All manufacturing.....	12,638	12,573	12,656	13,878	154.3	153.5
Durable goods.....	7,444	7,399	7,463	8,403	206.1	204.9
Nondurable goods.....	5,194	5,174	5,193	5,475	113.4	112.9
Iron and steel and their products.....	1,645	1,625	1,634	1,736	165.9	163.9
Electrical machinery.....	692	692	700	751	267.1	267.0
Machinery, except electrical.....	1,128	1,118	1,127	1,257	213.4	211.5
Transportation equipment, except automobiles.....	1,880	1,878	1,906	2,318	1184.8	1183.0
Automobiles.....	671	660	666	759	166.8	163.9
Nonferrous metals and their products.....	360	359	363	420	157.3	156.8
Lumber and timber basic products.....	407	412	414	454	96.8	98.0
Furniture and finished lumber products.....	334	332	331	357	101.8	101.3
Stone, clay, and glass products.....	327	323	322	351	111.4	110.2
Textile-mill products and other fiber manufactures.....	1,090	1,082	1,073	1,188	95.3	94.6
Apparel and other finished textile products.....	762	761	767	815	96.5	96.4
Leather and leather products.....	307	305	303	313	88.5	87.9
Food.....	987	1,009	1,045	990	115.5	118.1
Tobacco manufactures.....	85	84	83	90	90.7	90.2
Paper and allied products.....	304	301	298	316	114.6	113.2
Printing, publishing, and allied industries.....	337	333	331	342	102.7	101.5
Chemicals and allied products.....	626	607	602	692	217.1	210.8
Products of petroleum and coal.....	132	133	132	126	124.9	125.2
Rubber products.....	193	191	190	201	159.5	157.7
Miscellaneous industries.....	371	368	369	402	151.8	150.5

<sup>1</sup> The estimates and indexes presented in this table have been adjusted to final data for 1941 and preliminary data for the second quarter of 1942 made available by the Bureau of Employment Security of the Federal Security Agency.

<sup>2</sup> Preliminary.

### Public Employment

**Regular Federal.**—The peak of 3,600,000 employees in regular Federal services and Government corporations in December 1944 reflected seasonal hiring by the Post Office Department to handle the unusually large volume of Christmas mailings. Approximately 3,800 persons were employed temporarily for this purpose in Washington, D. C., and approximately 215,000 outside Washington. Exclusive of these temporary postal employees, Federal employment showed a net increase of 6,500 in December as the result of an employment increase in Navy Department employment in continental United States, in War Department employment outside continental United States, and small employment changes in several of the other agencies.

Federal employment was 118,000 higher in December 1944 than in December 1943. Almost a fourth of the increase was in war agencies within continental United States, over half in war agencies outside

continental United States, and the remainder in employment of all other agencies within continental United States. The major shifts occurring in the various agencies over the year were as follows:

War agencies		Increases	War agencies		Decreases
War Department.....	57,000		Central Administrative Services.....	4,500	
Navy Department.....	41,000		Office of Defense Transportation.....	1,400	
Maritime Commission.....	2,000		War Production Board.....	4,000	
National Advisory Committee for Aeronautics.....	2,000		Office of Censorship.....	2,000	
Office of War Information.....	5,000		The Panama Canal.....	4,000	
Office of Price Administration.....	5,000				
Other agencies			Other agencies		
Treasury Department.....	8,000		Justice Department.....	2,000	
Interior Department.....	3,000		Agriculture Department.....	4,000	
Post Office Department.....	19,000		National Housing Agency.....	4,000	
General Accounting Office.....	2,000		Tennessee Valley Authority.....	8,000	
Veterans Administration.....	9,000				

TABLE 2.—*Employment and Pay Rolls in Regular Federal Services, and in Government Corporations, December 1944*

[Subject to revision]

Service	Employment			Pay rolls		
	December 1944	November 1944	December 1943	December 1944	November 1944	December 1943
Total.....	3,599,650	3,374,603	3,482,959	\$765,580,567	\$720,819,489	(1)
Executive <sup>2</sup> .....	3,556,044	3,330,594	3,437,764	757,588,000	713,174,000	\$732,564,000
War agencies <sup>3</sup> .....	2,491,260	2,482,144	2,397,840	545,594,000	543,629,000	525,375,000
Continental United States.....	2,046,206	2,045,720	2,018,676	(1)	(1)	(1)
Outside continental United States <sup>4</sup> .....	445,054	436,424	379,164	(1)	(1)	(1)
Other agencies.....	1,064,784	848,450	1,039,924	211,994,000	169,545,000	207,189,000
Continental United States.....	1,048,690	832,492	1,022,901	(1)	(1)	(1)
Outside continental United States <sup>4</sup> .....	16,094	15,958	17,023	(1)	(1)	(1)
Judicial.....	2,646	2,646	2,655	780,844	788,508	774,028
Legislative.....	6,203	6,253	6,116	1,524,901	1,529,260	1,489,631
Government corporations <sup>5</sup> .....	34,757	35,110	36,424	5,686,822	5,327,721	(1)

<sup>1</sup> Data not available.

<sup>2</sup> Includes employees in United States navy yards who are also included under shipbuilding (table 3) and employees on force-account construction who are also included under construction projects (table 4). Pay rolls are estimated.

<sup>3</sup> Covers War and Navy Departments, Maritime Commission, National Advisory Committee for Aeronautics, The Panama Canal, Office for Emergency Management, Office of Censorship, Office of Price Administration, Office of Strategic Services, Selective Service System, Petroleum Administration for War, War Refugee Board, Committee for Congested Production Areas, Petroleum Reserves Corporation, and Office of Contract Settlement.

<sup>4</sup> Includes Alaska and the Panama Canal Zone.

<sup>5</sup> Data are for employees of the Panama Railroad Company, the Federal Reserve Banks, and banks of the Farm Credit Administration, who are paid out of operating revenues and not out of Federal appropriations. Data for other Government corporations are included under the executive service.

**Shipbuilding and repair.**—For shipbuilding and repair projects the year 1944 was one of gradually declining employment from the peak of 1,723,000 in December 1943 to 1,456,000 in December 1944. That production was maintained, however, is evidenced by the fact that the light displacement tonnage (weight of water displaced when the ship is without cargo) of merchant vessels built during 1944 exceeded by 145,000 tons that of those built during 1943, and by the fact that deliveries of naval vessels for 1944 exceeded deliveries for 1943 by approximately 30 percent.

Although employment on shipbuilding and repair projects declined 13,300 during December 1944, pay rolls increased \$16,827,000. The

movements of the employment and pay-roll series which frequently run counter to each other, as in December 1944, are difficult to interpret at the regional or national level. This is because of the fact that most shipyards pay their employees on a weekly basis but not always on the same day of the week (with the result that in almost every calendar month some shipyards have 5 weekly pay rolls) and because of the fact that a few days of overtime at one or more yards are reflected in the pay-roll totals but not in the employment.

TABLE 3.—*Total Employment and Pay Rolls in United States Navy Yards and Private Shipyards Within Continental United States, by Shipbuilding Region, December 1944*

Shipbuilding region	Employment (in thousands)			Pay rolls (in thousands)		
	December 1944 <sup>1</sup>	November 1944	December 1943	December 1944 <sup>1</sup>	November 1944	December 1943
All regions.....	1,455.6	1,468.9	1,722.5	\$431,760	\$414,933	\$468,057
U. S. navy yards <sup>2</sup> .....	319.3	321.6	326.1	91,292	92,670	89,633
Private shipyards.....	1,136.3	1,147.3	1,396.4	340,468	322,263	378,424
North Atlantic.....	516.0	518.6	629.6	156,369	154,212	(3)
South Atlantic.....	128.9	129.8	154.2	38,208	34,815	(3)
Gulf.....	194.6	196.8	238.8	55,634	54,238	(2)
Pacific.....	508.5	513.5	580.7	148,355	142,166	(2)
Great Lakes.....	53.0	53.9	65.6	17,128	15,002	(2)
Inland.....	54.6	56.3	53.6	16,066	14,500	(2)

<sup>1</sup> Preliminary.

<sup>2</sup> Includes all navy yards within continental United States constructing or repairing ships, including the Curtis Bay (Md.) Coast Guard yard.

<sup>3</sup> Break-down not available.

**Sources of data.**—Data for the Federal executive service are reported to the Civil Service Commission, whereas data for the legislative and judicial services and Government corporations are reported to the Bureau of Labor Statistics. Employment and pay rolls on shipbuilding and repair projects are received by the Bureau of Labor Statistics directly from all shipyards within continental United States. Employees in the United States navy yards are included in the data both for the Federal executive service and for shipbuilding and repair.

### Construction Employment

Employment on all types of new construction declined 43,800 in December 1944 to a total of 676,000. The decline of 15,700 in site employment on Federal projects occurred mainly on residential and nonresidential building construction and on river, harbor, and flood-control projects. Although site employment on non-Federal non-residential building projects showed an increase of 9,500 in December 1944, this was more than offset by sharp seasonal decreases on other types of projects which brought the non-Federal site employment total to 375,000 or 19,500 lower than in November 1944.

Between December 1943 and December 1944, site employment on non-Federal projects increased 6,800, while that on Federal projects declined 191,000, or 51 percent. Of the Federal projects, airport and residential building construction evidenced the greatest relative declines—73 percent for both types of projects.



TABLE 4.—*Estimated Employment and Pay Rolls on Construction Within Continental United States, December 1944*

Type of project	Employment (in thousands)			Pay rolls (in thousands)		
	December 1944 <sup>1</sup>	November 1944	December 1943	December 1944 <sup>1</sup>	November 1944	December 1943
New construction, total <sup>2</sup>	675.7	719.5	905.0	(3)	(3)	(3)
At the construction site	557.6	592.8	741.8	(3)	(3)	(3)
Federal projects <sup>3</sup>	183.0	198.7	374.0	\$38,662	\$41,727	\$73,546
Airports	9.3	11.1	34.3	1,850	2,162	5,593
Buildings	117.2	122.4	252.2	25,378	26,763	52,522
Residential	11.6	13.7	43.4	2,549	2,995	8,805
Nonresidential <sup>4</sup>	105.6	108.7	208.8	22,829	23,768	43,717
Electrification	.5	.4	.5	67	66	92
Reclamation	8.1	9.8	16.3	1,829	2,210	3,150
River, harbor, and flood control	17.1	20.9	25.6	3,274	4,097	4,747
Streets and highways	12.0	12.5	17.1	2,262	2,327	2,699
Water and sewer systems	3.9	6.0	8.1	636	984	1,234
Miscellaneous	14.9	15.6	19.9	3,367	3,118	3,509
Non-Federal projects	374.6	394.1	367.8	(3)	(3)	(3)
Buildings	205.4	202.3	205.6	47,653	47,338	44,410
Residential	83.5	89.9	133.8	(3)	(3)	(3)
Nonresidential	121.9	112.4	71.8	(3)	(3)	(3)
Farm	48.4	52.5	46.1	(3)	(3)	(3)
Public utilities	87.7	96.8	86.8	(3)	(3)	(3)
Streets and highways	18.3	26.8	21.5	(3)	(3)	(3)
State	10.0	12.6	10.8	(3)	(3)	(3)
County and municipal	8.3	14.2	10.7	(3)	(3)	(3)
Miscellaneous	14.8	15.7	7.8	(3)	(3)	(3)
Other <sup>5</sup>	118.1	126.7	163.2	(3)	(3)	(3)
Maintenance of State roads <sup>7</sup>	96.0	98.8	91.4	(3)	(3)	(3)

<sup>1</sup> Preliminary.<sup>2</sup> Data are for all construction workers (contract and force-account) engaged on new construction, additions and alterations, and on repair work of the type usually covered by building permits. (Force-account employees are workers hired directly by the owner and utilized as a separate work force to perform construction work of the type usually chargeable to capital account.) The construction figure included in the Bureau's nonagricultural employment series covers only employees of construction contractors and on Federal force-account, and excludes force-account workers of State and local governments, public utilities, and private firms.<sup>3</sup> Data not available.<sup>4</sup> Includes the following force-account employees, hired directly by the Federal Government, and their pay rolls: December 1943, 39,980, \$7,356,725; November 1944, 23,417, \$4,658,077; December 1944, 20,665, \$4,087,190. These employees are also included under the Federal executive service (table 2); all other workers were employed by contractors and subcontractors.<sup>5</sup> Includes the following employees and pay rolls for Defense Plant Corporation (RFC) projects: December 1943, 87,358, \$20,996,420; November 1944, 15,963, \$3,633,258; December 1944, 15,762, \$3,334,590.<sup>6</sup> Includes central office force of construction contractors, shop employees of special trades contractors such as bench sheet-metal workers, etc., and site employees engaged on projects which, for security reasons, cannot be shown above.<sup>7</sup> Data for other types of maintenance not available.

*Source of data.*—For construction projects financed wholly or partially from Federal funds, the Bureau of Labor Statistics receives monthly reports on employment and pay rolls at the construction site, directly from the contractors or from the Federal agency sponsoring the project. Force-account employees hired directly by the Federal Government are also included in table 2 under Federal executive service.

Estimates of employment on non-Federal construction projects (except State roads) are obtained by converting the value of work started (compiled from reports on building permits issued, priorities granted, and from certain special reports) into monthly expenditures and employment by means of factors which have been developed from special studies and adjusted to current conditions. For State roads projects, data represent estimates of the Public Roads Administration.

## Detailed Reports for Industrial and Business Employment, November 1944

### *Estimates of Nonagricultural Employment*

ESTIMATES of employment in nonagricultural establishments are shown in table 1. The estimates are based on reports of employers to the Bureau of Labor Statistics, on unemployment-compensation data made available by the Bureau of Employment Security of the Federal Security Agency, and on information supplied by other Government agencies, such as the Interstate Commerce Commission, Civil Service Commission, Bureau of the Census, and the Bureau of Old-Age and Survivors Insurance. The estimates include all wage and salaried workers in nonagricultural establishments but exclude military personnel, proprietors, self-employed persons, and domestic servants.

Estimates of employees in nonagricultural establishments, by States, are published each month in a detailed report on employment and pay rolls.

TABLE 1.—*Estimated Number of Employees in Nonagricultural Establishments, by Industry Division*

Industry division	Estimated number of employees (in thousands)			
	Novem- ber 1944	October 1944	Septem- ber 1944	Novem- ber 1943
Total estimated employment <sup>1</sup> .....	38,352	38,364	38,571	39,847
Manufacturing .....	15,602	15,698	15,843	17,238
Mining .....	812	816	826	863
Contract construction and Federal force-account construction ..	635	652	671	918
Transportation and public utilities .....	3,772	3,767	3,791	3,683
Trade .....	7,295	7,146	6,994	7,245
Finance, service, and miscellaneous .....	4,323	4,340	4,488	4,078
Federal, State, and local government, excluding Federal force- account construction .....	5,913	5,945	5,958	5,822

<sup>1</sup> Estimates include all full- and part-time wage and salaried workers in nonagricultural establishments who are employed during the pay period ending nearest the 15th of the month. Proprietors, self-employed persons, domestic servants, and personnel of the armed forces are excluded.

### *Industrial and Business Employment*

Monthly reports on employment and pay rolls are available for 154 manufacturing industries and for 27 nonmanufacturing industries, including water transportation and class I steam railroads. The reports for the first 2 of these groups—manufacturing and nonmanufacturing—are based on sample surveys by the Bureau of Labor Statistics. The figures on water transportation are based on estimates prepared by the Maritime Commission, and those on class I steam railroads are compiled by the Interstate Commerce Commission.

The employment, pay roll, hours, and earnings figures for manufacturing, mining, laundries, and cleaning and dyeing, cover wage earners only; but the figures for public utilities, brokerage, insurance, and hotels relate to all employees except corporation officers and executives, while for trade they relate to all employees except corporation officers, executives, and other employees whose duties are mainly supervisory. For crude-petroleum production they cover wage earners and clerical field force. The coverage of the reporting samples for the various nonmanufacturing industries ranges from about 25 percent for wholesale and retail trade, cleaning and dyeing, and insurance, to about 80 percent for public utilities and 90 percent for mining.

The general manufacturing indexes are computed from reports supplied by representative establishments in the 154 manufacturing industries surveyed. These reports cover more than 65 percent of the total wage earners in all manufacturing industries of the country and about 80 percent of the wage earners in the 154 industries covered.

Data for both manufacturing and nonmanufacturing industries are based on reports of the number of employees and the amount of pay rolls for the period ending nearest the 15th of the month.

#### INDEXES OF EMPLOYMENT AND PAY ROLLS

Employment and pay-roll indexes, for both manufacturing and non-manufacturing industries, for September, October, and November 1944, and for November 1943, are presented in tables 3 and 5.

The figures relating to all manufacturing industries combined, to the durable- and nondurable-goods divisions, and to the major industry groups, have been adjusted to conform to levels indicated by final data for 1941 and preliminary data for the second quarter of 1942 released by the Bureau of Employment Security of the Federal Security Agency. The Bureau of Employment Security data referred to are (a) employment totals reported by employers under State unemployment-compensation programs, and (b) estimates of the number of employees not reported under the programs of some of these States, which do not cover small establishments. The latter estimates were obtained from tabulations prepared by the Bureau of Old-Age and Survivors Insurance, which obtains reports from all employers, regardless of size of establishment.

Not all industries in each major industry group are represented in the tables since minor industries are not canvassed by the Bureau. Furthermore, no attempt has been made to allocate among the separate industries the adjustments to unemployment-compensation data. Hence, the estimates for individual industries within a group do not in general add to the total for that group.



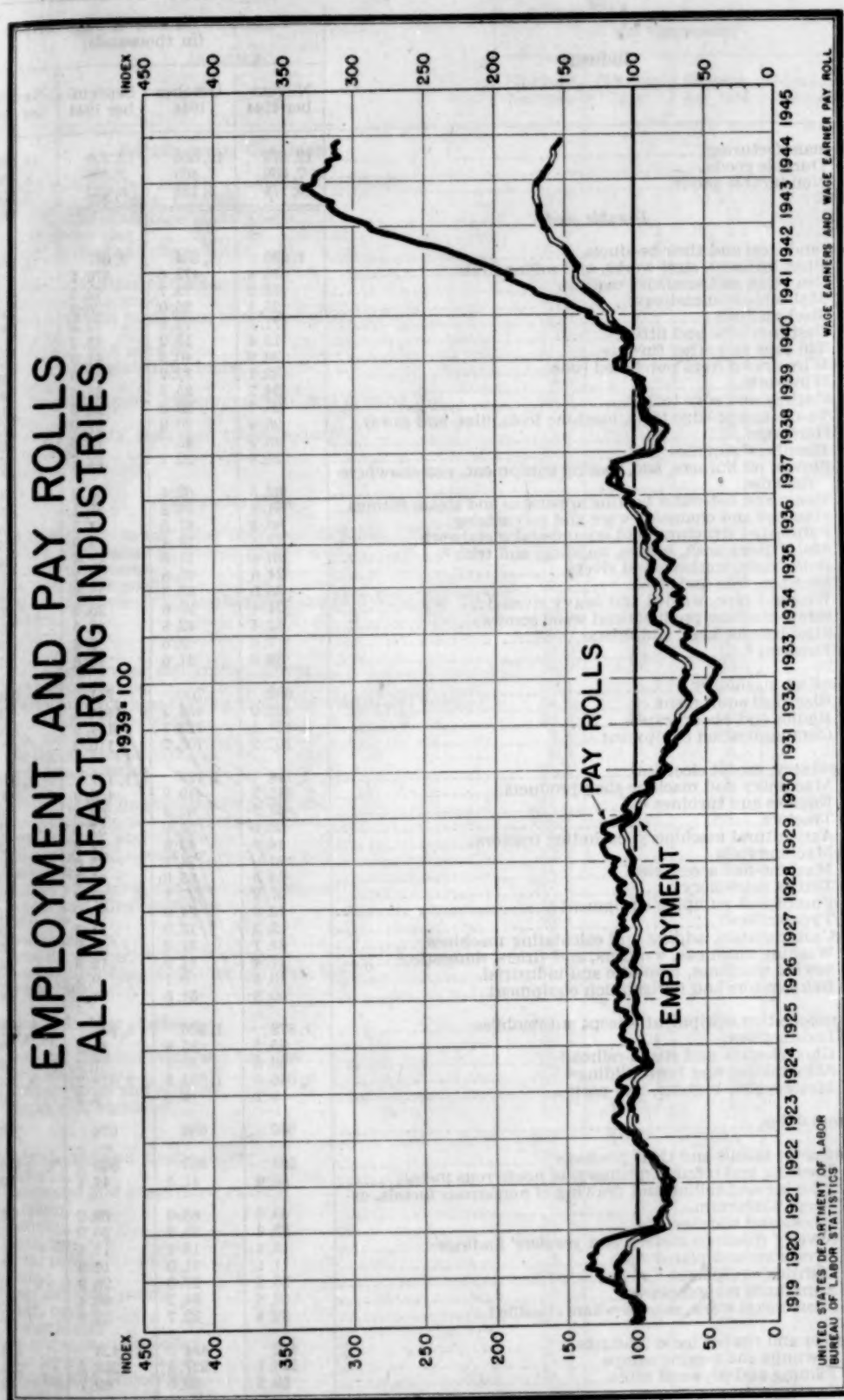


TABLE 2.—Estimated Number of Wage Earners in Manufacturing Industries <sup>1</sup>

Industry	Estimated number of wage earners (in thousands)			
	November 1944	October 1944	September 1944	November 1943
All manufacturing.....	12,573	12,656	12,799	14,007
Durable goods.....	7,399	7,463	7,566	8,456
Nondurable goods.....	5,174	5,193	5,233	5,551
<i>Durable goods</i>				
Iron and steel and their products.....	1,625	1,634	1,647	1,744
Blast furnaces, steel works, and rolling mills.....	473.8	473.6	476.7	507.8
Gray-iron and semisteel castings.....	73.2	72.7	72.5	78.3
Malleable-iron castings.....	25.1	25.0	25.0	25.8
Steel castings.....	71.7	71.6	72.3	80.3
Cast-iron pipe and fittings.....	15.4	15.2	15.3	15.5
Tin cans and other tinware.....	38.9	40.9	41.9	33.3
Wire drawn from purchased rods.....	32.1	32.2	32.6	35.5
Wirework.....	34.7	35.5	35.5	34.4
Cutlery and edge tools.....	23.7	23.3	23.0	22.7
Tools (except edge tools, machine tools, files, and saws).....	26.9	26.9	27.0	27.9
Hardware.....	45.9	45.7	45.6	47.5
Plumbers' supplies.....	21.8	22.1	22.7	23.8
Stoves, oil burners, and heating equipment, not elsewhere classified.....	62.5	62.4	63.3	60.9
Steam and hot-water heating apparatus and steam fittings.....	54.8	54.8	55.1	59.9
Stamped and enameled ware and galvanizing.....	86.2	87.5	88.3	94.5
Fabricated structural and ornamental metalwork.....	72.3	73.4	73.9	74.0
Metal doors, sash, frames, molding, and trim <sup>2</sup> .....	10.8	11.5	12.4	14.1
Bolts, nuts, washers, and rivets.....	24.6	25.8	25.7	30.0
Forgings, iron and steel.....	35.0	35.3	35.5	40.6
Wrought pipe, welded and heavy riveted.....	24.4	25.6	25.3	26.4
Screw-machine products and wood screws.....	42.4	42.8	43.5	49.2
Steel barrels, kegs, and drums.....	7.6	7.5	7.3	8.5
Firearms <sup>3</sup> .....	38.0	41.6	43.6	67.6
Electrical machinery.....	692	700	711	751
Electrical equipment.....	433.0	438.3	444.4	471.6
Radios and phonographs.....	121.1	123.7	124.9	128.0
Communication equipment.....	107.2	107.7	110.2	118.7
Machinery, except electrical.....	1,118	1,127	1,137	1,263
Machinery and machine-shop products.....	445.5	449.8	453.9	500.5
Engines and turbines <sup>4</sup> .....	67.5	67.9	69.3	70.6
Tractors.....	56.6	57.0	57.5	57.5
Agricultural machinery, excluding tractors.....	44.0	43.9	44.2	42.0
Machine tools.....	74.0	74.7	75.6	95.0
Machine-tool accessories.....	64.5	65.0	65.5	83.8
Textile machinery.....	27.3	27.1	27.0	29.0
Pumps and pumping equipment.....	73.6	74.9	75.2	81.1
Typewriters.....	12.3	12.0	11.7	13.0
Cash registers, adding and calculating machines.....	31.1	31.2	31.9	36.4
Washing machines, wringers, and driers, domestic.....	11.4	11.9	12.9	14.8
Sewing machines, domestic and industrial.....	10.5	10.1	9.8	10.7
Refrigerators and refrigeration equipment.....	50.8	51.5	51.2	58.7
Transportation equipment, except automobiles.....	1,878	1,906	1,942	2,337
Locomotives.....	35.5	35.8	35.3	36.5
Cars, electric- and steam-railroad.....	56.5	57.5	57.2	58.0
Shipbuilding and boatbuilding <sup>5</sup> .....	1,046.6	1,054.3	1,074.2	1,293.2
Motorcycles, bicycles, and parts.....	9.2	9.0	8.9	10.4
Automobiles.....	660	666	678	700
Nonferrous metals and their products.....	359	363	369	426
Smelting and refining, primary, of nonferrous metals.....	40.4	41.5	44.1	60.0
Alloying and rolling and drawing of nonferrous metals, except aluminum.....	69.0	68.9	69.2	76.3
Clocks and watches.....	25.9	25.9	26.0	25.3
Jewelry (precious metals) and jewelers' findings.....	13.4	13.4	13.5	15.1
Silverware and plated ware.....	11.1	11.0	10.9	12.0
Lighting equipment.....	26.2	27.0	26.9	26.9
Aluminum manufactures.....	63.8	64.2	66.4	89.4
Sheet-metal work, not elsewhere classified.....	32.4	32.7	32.9	29.2
Lumber and timber basic products.....	412	414	423	463
Sawmills and logging camps.....	226.1	227.3	233.5	252.5
Planing and plywood mills.....	69.2	69.6	69.7	79.6
Furniture and finished lumber products.....	332	331	333	361
Mattresses and bedsprings.....	18.0	17.9	17.6	19.2
Furniture.....	152.7	152.5	153.4	169.3

See footnotes at end of table.

TABLE 2.—Estimated Number of Wage Earners in Manufacturing Industries—Con.

Industry	Estimated number of wage earners (in thousands)			
	Novem- ber 1944	October 1944	Septem- ber 1944	Novem- ber 1943
<i>Durable goods—Continued</i>				
<i>Furniture and finished lumber products—Continued.</i>				
Wooden boxes, other than cigar	27.2	26.9	27.3	29.0
Caskets and other morticians' goods	12.0	12.1	12.3	12.0
Wood preserving	9.6	9.5	9.9	10.2
Wood, turned and shaped	21.5	21.3	21.2	22.2
<i>Stone, clay, and glass products</i>				
Stone, clay, and glass products	323	322	326	351
Glass and glassware	87.2	87.1	88.3	91.4
Glass products made from purchased glass	10.6	10.3	10.2	11.1
Cement	17.1	17.1	17.3	21.7
Brick, tile, and terra cotta	41.4	41.1	41.9	46.3
Pottery and related products	39.9	39.8	40.4	42.4
Gypsum	4.0	4.0	4.0	4.6
Wallboard, plaster (except gypsum), and mineral wool	9.5	9.6	9.6	10.5
Lime	7.7	7.8	8.0	8.9
Marble, granite, slate, and other products	13.8	13.6	13.2	12.6
Abrasives	21.1	20.7	20.9	24.2
Asbestos products	19.9	19.7	19.9	22.2
<i>Nondurable goods</i>				
<i>Textile-mill products and other fiber manufactures</i>				
Textile-mill products and other fiber manufactures	1,082	1,073	1,077	1,190
Cotton manufactures, except smallwares	428.8	424.1	427.5	473.6
Cotton smallwares	13.5	13.3	13.1	15.4
Silk and rayon goods	89.2	88.1	88.3	94.4
Woolen and worsted manufactures, except dyeing and finishing	146.8	146.0	145.8	160.8
Hosiery	102.0	102.0	102.9	113.6
Knitted cloth	10.2	10.3	10.1	11.6
Knitted outerwear and knitted gloves	29.2	28.7	28.4	32.0
Knitted underwear	34.4	34.2	34.3	39.7
Dyeing and finishing textiles, including woolen and worsted	59.3	59.1	59.4	65.0
Carpets and rugs, wool	20.3	20.1	20.1	21.1
Hats, fur-felt	9.4	9.3	9.2	10.0
Jute goods, except felts	3.3	3.3	3.3	3.6
Cordage and twine	15.1	15.0	15.1	16.8
<i>Apparel and other finished textile products</i>				
Apparel and other finished textile products	761	767	763	823
Men's clothing, not elsewhere classified	205.7	208.3	208.1	221.6
Shirts, collars, and nightwear	51.1	51.7	51.7	56.4
Underwear and neckwear, men's	12.2	12.2	12.1	12.8
Work shirts	14.5	14.6	14.7	17.8
Women's clothing, not elsewhere classified	217.5	218.8	216.4	231.0
Corsets and allied garments	14.9	14.8	14.5	16.5
Millinery	18.4	19.2	19.3	17.7
Handkerchiefs	2.8	2.8	2.8	3.5
Curtains, draperies, and bedspreads	13.0	13.1	13.1	16.4
Housefurnishings, other than curtains, etc.	11.6	11.3	11.0	13.8
Textile bags	13.9	13.8	13.7	15.0
<i>Leather and leather products</i>				
Leather and leather products	305	303	303	315
Leather	39.2	39.3	39.4	40.9
Boot and shoe cut stock and findings	16.1	16.0	15.5	16.5
Boots and shoes	172.3	171.0	172.0	177.9
Leather gloves and mittens	12.8	12.7	12.5	14.0
Trunks and suitcases	13.1	12.7	12.6	12.4
<i>Food</i>				
Food	1,009	1,045	1,099	1,013
Slaughtering and meat packing	149.1	147.9	150.6	164.3
Butter	21.0	21.3	22.3	20.7
Condensed and evaporated milk	13.5	13.7	14.2	12.2
Ice cream	13.9	14.5	15.4	13.9
Flour	28.9	28.4	28.1	30.0
Feeds, prepared	20.4	19.8	19.8	21.8
Cereal preparations	8.4	8.4	8.5	9.8
Baking	264.8	261.5	255.6	263.7
Sugar refining, cane	14.5	14.7	14.9	14.9
Sugar, beet	21.8	18.1	6.8	20.3
Confectionery	60.7	58.9	56.5	60.3
Beverages, nonalcoholic	26.6	27.6	29.8	27.4
Malt liquors	51.3	51.8	52.9	47.3
Canning and preserving	134.3	180.1	244.4	125.1

See footnotes at end of table.



TABLE 2.—Estimated Number of Wage Earners in Manufacturing Industries—Con.

Industry	Estimated number of wage earners (in thousands)			
	November 1944	October 1944	September 1944	November 1943
<i>Nondurable goods—Continued</i>				
Tobacco manufactures.....	84	83	82	90
Cigarettes.....	35.8	35.3	34.6	35.7
Cigars.....	34.6	34.5	34.4	39.9
Tobacco (chewing and smoking) and snuff.....	8.4	8.3	8.0	8.6
Paper and allied products.....	301	298	297	316
Paper and pulp.....	145.0	143.9	145.3	149.4
Paper goods, other.....	44.8	44.4	42.5	47.9
Envelopes.....	9.7	9.6	9.5	10.4
Paper bags.....	13.2	12.9	13.1	12.9
Paper boxes.....	78.8	78.3	77.7	85.9
Printing, publishing, and allied industries.....	333	331	325	342
Newspapers and periodicals.....	110.7	110.3	109.3	113.2
Printing, book and job.....	134.5	133.3	130.3	136.8
Lithographing.....	24.4	24.4	24.0	25.0
Bookbinding.....	27.8	27.6	27.1	30.2
Chemicals and allied products.....	607	602	593	729
Paints, varnishes, and colors.....	29.8	29.6	29.5	29.8
Drugs, medicines, and insecticides.....	49.6	49.5	49.0	48.6
Perfumes and cosmetics.....	12.8	12.4	12.0	12.2
Soap.....	13.5	13.5	13.5	13.5
Rayon and allied products.....	53.7	53.1	52.7	51.6
Chemicals, not elsewhere classified.....	115.2	115.9	117.0	123.0
Explosives and safety fuses <sup>1</sup> .....	90.0	87.7	83.5	86.8
Compressed and liquefied gases.....	5.6	5.8	5.9	6.3
Ammunition, small-arms <sup>2</sup> .....	50.4	50.3	49.8	141.7
Fireworks <sup>3</sup> .....	26.6	26.5	27.6	29.3
Cottonseed oil.....	20.6	19.0	16.1	22.3
Fertilizers.....	20.0	19.0	19.1	21.2
Products of petroleum and coal.....	133	132	134	126
Petroleum refining.....	90.3	90.0	90.7	82.2
Coke and byproducts.....	22.2	22.4	22.9	23.5
Paving materials.....	1.7	1.7	1.7	2.0
Roofing materials.....	9.6	9.6	9.5	9.8
Rubber products.....	191	190	191	199
Rubber tires and inner tubes.....	92.8	92.3	92.3	92.1
Rubber boots and shoes.....	18.3	18.4	18.5	21.6
Rubber goods, other.....	70.3	70.0	70.4	76.0
Miscellaneous industries.....	368	369	369	408
Instruments (professional and scientific), and fire-control equipment <sup>1</sup> .....	59.2	60.7	61.5	71.1
Photographic apparatus.....	27.9	27.7	27.9	30.4
Optical instruments and ophthalmic goods <sup>3</sup> .....	23.4	23.3	23.4	27.1
Pianos, organs, and parts.....	7.1	7.1	6.8	10.8
Games, toys, and dolls.....	16.9	16.9	16.9	16.9
Buttons.....	9.4	9.2	9.0	10.2
Fire extinguishers.....	5.1	5.3	5.5	7.5

<sup>1</sup> Estimates for the major industry groups have been adjusted to final data for 1941 and preliminary data for the second quarter of 1942 made available by the Bureau of Employment Security of the Federal Security Agency. Estimates for individual industries have been adjusted to levels indicated by the 1939 Census of Manufactures, but not to Federal Security Agency data. For this reason, together with the fact that this Bureau has not prepared estimates for certain industries, the sum of the individual industry estimates will not agree with totals shown for the major industry groups.

<sup>2</sup> Revisions have been made as follows in the data for earlier months:

*Metal doors, sash, frames, molding, and trim.*—July 1944 wage earners to 13.4.

*Sugar, beet.*—August 1944 wage earners to 4.8.

<sup>3</sup> Comparable data from January 1939 are available upon request.

TABLE 3.—Indexes of Wage-Earner Employment and Wage-Earner Pay Roll in Manufacturing Industries <sup>1</sup>

[1939 average = 100]

Industry	Wage-earner employment				Wage-earner pay roll			
	Nov. 1944	Oct. 1944	Sept. 1944	Nov. 1943	Nov. 1944	Oct. 1944	Sept. 1944	Nov. 1943
All manufacturing.....	153.5	154.5	156.2	171.0	311.6	314.3	312.9	336.5
Durable goods.....	204.9	206.7	209.5	234.2	425.9	430.8	428.3	474.6
Nondurable goods.....	112.9	113.4	114.2	121.2	199.7	200.4	200.1	201.4
<i>Durable goods</i>								
Iron and steel and their products.....	163.9	164.8	166.1	175.9	306.6	310.9	312.0	320.1
Blast furnaces, steel works, and rolling mills.....	122.0	121.9	122.7	130.7	221.9	225.3	226.7	226.8
Gray-iron and semisteel castings.....	125.3	124.4	124.2	134.0	251.7	254.3	252.0	257.0
Malleable-iron castings.....	138.9	138.7	138.8	143.0	291.9	296.5	292.5	283.3
Steel castings.....	238.1	237.8	240.3	267.0	448.6	453.4	452.0	486.0
Cast-iron pipe and fittings.....	93.2	92.0	92.6	93.7	187.9	185.1	181.6	165.2
Tin cans and other tinware.....	122.4	128.6	131.8	105.0	205.4	216.5	224.8	169.4
Wire drawn from purchased rods.....	145.9	146.4	148.4	161.6	251.2	252.2	247.5	262.3
Wirework.....	114.3	117.0	116.9	113.3	229.7	235.6	237.5	222.2
Cutlery and edge tools.....	153.8	151.3	149.2	147.2	320.4	317.7	310.0	361.8
Tools (except edge tools, machine tools, files, and saws).....	175.4	175.7	176.3	182.4	330.3	329.0	328.6	347.9
Hardware.....	128.9	128.1	128.0	133.2	266.4	266.5	261.1	268.6
Plumbers' supplies.....	88.4	89.5	92.1	96.5	161.7	165.4	167.4	172.1
Stoves, oil burners, and heating equipment, not elsewhere classified.....	135.5	135.2	137.3	132.0	260.9	262.2	261.0	239.1
Steam and hot-water heating apparatus and steam fittings.....	180.8	180.7	181.9	197.6	351.0	347.4	341.3	365.2
Stamped and enameled ware and galvanizing.....	155.2	157.5	159.0	170.1	313.4	327.3	326.6	339.9
Fabricated structural and ornamental metalwork.....	203.6	206.6	208.0	208.3	396.7	400.7	406.6	397.2
Metal doors, sash, frames, molding, and trim <sup>2</sup> .....	140.0	148.3	159.7	181.7	266.7	295.6	306.2	338.3
Bolts, nuts, washers, and rivets.....	171.6	176.3	179.4	209.4	335.1	346.9	347.3	408.6
Forgings, iron and steel.....	227.7	229.9	230.7	264.4	459.2	472.7	465.3	532.7
Wrought pipe, welded and heavy riveted.....	291.4	306.0	302.5	315.3	568.4	627.3	584.3	570.3
Screw-machine products and wood screws.....	250.8	253.0	257.0	290.5	488.9	497.1	504.1	569.5
Steel barrels, kegs, and drums.....	125.8	123.2	119.7	139.7	246.8	244.9	232.3	285.9
Firearms <sup>3</sup> .....	760.2	831.9	871.5	1352.6	1758.4	1869.1	2002.6	3003.7
Electrical machinery.....	267.0	270.2	274.2	289.9	487.8	492.7	500.9	506.2
Electrical equipment.....	239.5	242.5	245.9	260.9	443.8	450.3	457.7	463.6
Radios and phonographs.....	278.4	284.3	287.0	294.1	538.2	542.3	547.0	552.0
Communication equipment.....	333.7	335.4	343.2	369.7	551.6	552.0	561.8	562.5
Machinery, except electrical.....	211.5	213.2	215.2	239.0	397.9	406.1	403.1	445.7
Machinery and machine-shop products.....	220.2	222.3	224.3	247.4	408.4	415.5	410.3	450.4
Engines and turbines <sup>4</sup> .....	362.1	364.1	371.3	378.3	766.4	786.6	772.6	793.9
Tractors.....	180.9	182.1	183.8	183.8	289.7	291.9	291.0	288.0
Agricultural machinery, excluding tractors.....	158.1	157.8	159.0	150.9	311.2	316.3	332.7	293.8
Machine tools.....	202.2	204.0	206.5	259.3	363.2	372.6	366.8	441.3
Machine-tool accessories.....	256.3	258.5	260.4	332.9	441.3	447.3	449.6	563.3
Textile machinery.....	124.8	123.6	123.3	132.2	233.0	233.4	226.3	238.7
Pumps and pumping equipment.....	303.8	308.9	310.2	334.8	626.5	659.4	665.6	694.6
Typewriters.....	75.8	73.8	72.3	79.9	154.7	152.0	144.4	160.2
Cash registers, adding and calculating machines.....	158.2	158.4	162.2	184.9	305.8	309.2	317.0	374.4
Washing machines, wringers and driers, domestic.....	153.0	158.8	172.3	198.8	268.3	283.2	306.1	339.4
Sewing machines, domestic and industrial.....	134.0	129.4	125.5	136.7	282.3	271.0	261.8	294.2
Refrigerators and refrigeration equipment.....	144.6	146.4	145.7	166.9	290.6	272.5	259.3	298.3
Transportation equipment, except automobiles.....	1183.0	1200.9	1223.4	1472.4	2582.4	2591.2	2562.1	3039.1
Locomotives.....	549.0	553.6	546.0	564.3	1256.4	1297.7	1222.9	1214.2
Cars, electric- and steam-railroad.....	230.2	234.3	233.4	236.5	467.7	486.9	450.2	454.4
Shipbuilding and boatbuilding <sup>5</sup> .....	1511.4	1522.5	1551.4	1867.6	3509.6	3468.7	3399.3	4105.5
Motorcycles, bicycles, and parts.....	131.7	128.8	127.9	149.5	241.7	239.0	244.7	265.2
Automobiles.....	163.9	165.5	168.4	188.9	305.4	304.5	299.9	351.3
Nonferrous metals and their products.....	156.8	158.2	161.0	185.6	295.8	300.7	300.2	343.9
Smelting and refining, primary, of nonferrous metals.....	146.3	150.4	159.5	217.2	266.8	281.4	297.8	391.0
Alloying and rolling and drawing of nonferrous metals, except aluminum.....	177.8	177.5	178.4	196.5	333.7	335.8	330.1	366.3
Clocks and watches.....	127.8	127.7	128.4	124.6	272.8	268.6	268.5	248.0
Jewelry (precious metals) and jewelers' findings.....	92.8	92.9	93.4	104.9	159.5	157.5	155.2	163.8
Silverware and plated ware.....	91.4	90.9	89.6	99.1	164.6	163.7	161.8	174.8
Lighting equipment.....	127.9	132.0	131.3	131.4	228.9	238.7	222.7	233.2
Aluminum manufactures.....	271.2	272.7	282.1	379.6	493.3	501.6	506.3	675.2
Sheet-metal work, not elsewhere classified.....	172.9	174.6	175.5	155.7	336.0	341.0	335.3	292.9

See footnotes at end of table.

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TABLE 3.—*Indexes of Wage-Earner Employment and Wage-Earner Pay Roll in Manufacturing Industries*<sup>1</sup>—Continued

[1939 average=100]

Industry	Wage-earner employment				Wage-earner pay roll			
	Nov. 1944	Oct. 1944	Sept. 1944	Nov. 1943	Nov. 1944	Oct. 1944	Sept. 1944	Nov. 1943
<b>Durable goods—Continued</b>								
Lumber and timber basic products.....	98.0	98.5	100.6	110.1	178.7	191.2	188.1	197.4
Sawmills and logging camps.....	78.5	78.9	81.1	87.7	143.8	156.5	154.3	160.2
Planing and plywood mills.....	95.3	95.8	95.9	109.5	167.7	170.0	166.3	180.9
Furniture and finished lumber products.....	101.3	100.9	101.6	110.0	187.4	189.7	186.2	191.1
Mattresses and bedsprings.....	98.0	97.4	95.9	104.6	174.0	175.1	167.5	174.0
Furniture.....	95.9	95.8	96.3	106.3	177.2	178.5	175.0	184.8
Wooden boxes, other than cigar.....	107.3	106.3	107.7	114.6	215.0	221.4	215.2	208.6
Caskets and other morticians' goods.....	96.0	97.3	99.2	96.1	163.1	170.8	172.4	155.7
Wood preserving.....	85.6	84.7	87.7	90.8	182.3	190.3	188.0	174.5
Wood, turned and shaped.....	97.9	96.8	96.3	100.7	176.6	176.2	174.7	170.8
Stone, clay, and glass products.....	110.2	109.6	111.0	119.5	187.4	189.9	186.3	195.2
Glass and glassware.....	124.9	124.8	126.5	130.9	200.8	204.9	200.7	206.7
Glass products made from purchased glass.....	106.3	102.7	102.0	110.6	179.6	176.0	173.1	179.7
Cement.....	71.7	71.8	72.6	91.1	116.2	119.8	115.8	134.1
Brick, tile, and terra cotta.....	72.9	72.5	73.9	81.5	119.8	122.6	119.3	127.0
Pottery and related products.....	120.5	120.4	121.9	128.2	190.9	191.6	188.9	195.0
Gypsum.....	80.6	80.8	80.6	93.5	143.0	143.8	137.3	165.1
Wallboard, plaster (except gypsum), and mineral wool.....	117.6	117.8	118.2	129.4	214.7	218.5	224.9	222.8
Lime.....	81.4	82.3	84.4	94.1	157.7	170.5	164.8	171.8
Marble, granite, slate, and other products.....	74.6	73.5	71.5	67.9	112.3	113.4	105.6	98.2
Abrasives.....	272.5	267.8	270.6	312.4	473.6	464.4	464.8	509.5
Asbestos products.....	125.6	124.1	125.2	139.6	255.0	257.5	252.5	266.5
<b>Nondurable goods</b>								
Textile mill products and other fiber manufactures.....	94.6	93.8	94.2	104.0	172.4	170.6	169.1	176.2
Cotton manufactures, except smallwares.....	108.3	107.1	108.0	119.6	206.8	203.5	204.4	207.4
Cotton smallwares.....	101.4	100.2	98.7	115.9	180.0	182.9	175.3	196.1
Silk and rayon goods.....	74.4	73.6	73.7	78.8	139.4	138.5	132.8	137.9
Woolen and worsted manufactures, except dyeing and finishing.....	98.4	97.8	97.7	107.8	189.4	188.0	185.1	198.6
Hosiery.....	64.1	64.1	64.7	71.4	104.7	104.2	103.6	110.4
Knitted cloth.....	93.8	94.3	92.7	106.3	165.1	165.9	164.5	178.2
Knitted outerwear and knitted gloves.....	103.7	102.2	101.0	113.9	193.8	190.5	184.5	200.9
Knitted underwear.....	89.3	88.9	89.0	103.1	165.6	164.3	162.5	180.0
Dyeing and finishing textiles, including woolen and worsted.....	88.7	88.4	88.8	97.3	150.6	149.6	148.3	153.5
Carpets and rugs, wool.....	79.4	78.5	78.6	82.5	136.6	135.9	135.4	137.5
Hats, fur-felt.....	64.5	64.0	63.4	68.4	124.9	123.8	118.5	124.3
Jute goods, except felts.....	92.4	91.6	92.2	101.0	182.6	179.1	179.7	186.4
Cordage and twine.....	124.9	123.8	124.7	139.3	235.2	233.6	232.7	242.7
Apparel and other finished textile products.....	96.4	97.2	96.6	104.2	171.4	175.5	174.4	165.6
Men's clothing, not elsewhere classified.....	94.1	95.3	95.2	101.4	169.2	169.6	166.3	161.8
Shirts, collars, and nightwear.....	72.5	73.3	73.4	80.0	128.7	130.9	128.4	135.2
Underwear and neckwear, men's.....	75.6	75.5	74.8	79.3	152.4	151.7	146.6	149.7
Work shirts.....	107.8	108.3	109.3	132.2	210.5	211.5	210.0	236.8
Women's clothing, not elsewhere classified.....	80.1	80.5	79.6	85.0	141.1	147.4	148.4	132.6
Corsets and allied garments.....	79.6	78.9	77.1	87.8	140.6	139.3	132.6	146.2
Millinery.....	75.5	79.2	79.4	73.0	104.6	126.8	137.1	92.3
Handkerchiefs.....	58.2	58.4	58.0	73.2	110.6	110.3	105.1	128.7
Curtains, draperies, and bedspreads.....	76.7	77.8	77.5	96.9	154.3	153.8	149.9	173.7
Housefurnishings, other than curtains, etc.....	109.5	105.9	103.8	129.9	213.6	205.1	191.3	244.0
Textile bags.....	116.1	114.7	114.1	125.1	198.9	195.5	195.0	196.2
Leather and leather products.....	87.9	87.3	87.4	90.9	154.7	155.3	155.8	146.1
Leather.....	82.9	83.1	83.5	86.7	143.3	144.0	146.2	135.4
Boot and shoe cut stock and findings.....	85.4	84.7	82.4	87.5	140.9	140.1	141.6	131.7
Boots and shoes.....	79.0	78.5	78.9	81.6	141.9	142.7	143.1	133.1
Leather gloves and mittens.....	127.7	126.8	124.9	140.1	222.6	223.0	224.5	237.1
Trunks and suitcases.....	156.8	152.4	150.7	149.5	250.9	248.3	236.1	241.4
Food.....	118.1	122.4	128.6	118.5	191.3	194.7	199.8	186.0
Slaughtering and meat packing.....	123.7	122.7	125.0	136.4	211.4	200.2	200.3	232.3
Butter.....	117.2	118.8	124.4	115.4	180.3	187.2	191.6	168.6
Condensed and evaporated milk.....	138.7	141.4	146.6	125.6	216.9	229.2	240.4	188.6
Ice cream.....	88.8	92.3	98.2	88.4	126.5	132.3	139.3	117.5
Flour.....	116.8	114.6	113.3	121.1	196.6	192.3	196.8	197.0
Feeds, prepared.....	132.3	128.6	128.3	141.5	219.3	219.3	225.9	233.9

See footnotes at end of table.



TABLE 3.—Indexes of Wage-Earner Employment and Wage-Earner Pay Roll in Manufacturing Industries<sup>1</sup>—Continued

(1939 average=100)

Industry	Wage-earner employment				Wage-earner pay roll			
	Nov. 1944	Oct. 1944	Sept. 1944	Nov. 1943	Nov. 1944	Oct. 1944	Sept. 1944	Nov. 1943
<b>Nondurable goods—Continued</b>								
<b>Food—Continued.</b>								
Cereal preparations.....	113.3	113.1	114.6	131.7	197.3	198.9	201.4	226.7
Baking.....	114.8	113.3	110.8	114.3	174.5	171.4	168.7	163.6
Sugar refining, cane.....	102.6	103.6	105.5	105.4	159.7	172.9	171.7	166.7
Sugar, beet <sup>2</sup> .....	209.3	174.1	65.6	194.6	298.6	228.9	87.1	283.0
Confectionery.....	122.0	118.5	113.5	121.1	205.6	199.6	191.6	188.6
Beverages, nonalcoholic.....	125.1	129.9	140.1	128.7	166.3	171.4	188.3	158.9
Malt liquors.....	142.2	143.6	146.5	131.1	204.1	209.6	216.1	181.9
Canning and preserving.....	99.9	133.9	181.8	93.0	188.7	262.3	336.4	164.4
<b>Tobacco manufactures.</b>								
Cigarettes.....	90.2	89.3	88.1	96.3	172.8	165.9	163.1	162.5
Cigars.....	130.6	128.6	126.1	130.2	215.6	208.9	202.3	196.3
Tobacco (chewing and smoking) and snuff.....	68.0	67.8	67.6	78.4	144.0	137.0	137.6	141.2
	91.9	90.0	87.4	93.5	155.9	148.4	143.8	142.4
<b>Paper and allied products.</b>								
Paper and pulp.....	113.2	112.4	111.9	119.1	189.3	188.3	185.2	184.8
Paper goods, other.....	105.5	104.7	105.7	108.7	182.0	182.6	180.0	174.9
Envelopes.....	119.0	118.1	112.8	127.3	195.1	191.9	182.0	192.2
Paper bags.....	111.4	110.9	109.1	119.9	171.9	171.7	166.4	176.6
Paper boxes.....	119.1	116.7	118.5	116.4	205.8	199.3	201.6	191.6
	113.9	113.2	112.4	124.1	183.3	180.4	180.0	187.9
<b>Printing, publishing, and allied industries</b>								
Newspapers and periodicals.....	101.5	100.9	99.2	104.2	142.3	139.7	139.0	133.7
Printing, book and job.....	93.3	92.9	92.1	95.4	120.8	119.3	119.6	115.2
Lithographing.....	106.4	105.5	103.2	108.3	156.8	153.7	151.5	141.9
Bookbinding.....	93.7	93.9	92.2	96.3	136.5	132.2	132.8	131.1
	107.7	107.1	105.3	117.2	182.3	177.9	177.1	187.9
<b>Chemicals and allied products</b>								
Paints, varnishes, and colors.....	210.8	208.8	205.8	253.0	366.5	364.9	361.1	428.6
Drugs, medicines, and insecticides.....	106.0	105.1	104.9	106.0	167.0	167.1	166.0	160.8
Perfumes and cosmetics.....	181.0	180.7	178.8	177.4	269.7	268.2	265.0	258.4
Soap.....	123.2	120.1	115.5	117.8	182.6	176.2	167.3	164.7
Rayon and allied products.....	99.8	99.5	99.1	99.8	168.5	170.7	171.3	157.5
Chemicals, not elsewhere classified.....	111.3	110.0	109.2	107.0	179.0	176.8	176.1	166.4
Explosives and safety fuses <sup>3</sup> .....	165.5	166.6	168.1	176.8	289.2	288.6	292.8	296.6
Compressed and liquefied gases.....	1240.6	1209.7	1151.9	1196.8	1865.5	1847.4	1781.6	1853.9
Ammunition, small-arms <sup>3</sup> .....	142.6	146.1	148.5	159.8	254.2	262.1	262.9	275.8
Fireworks <sup>3</sup> .....	1182.6	1178.6	1168.8	3323.2	2370.7	2402.2	2332.2	2623.1
Cottonseed oil.....	2294.0	2284.4	2382.8	2533.9	6231.8	6100.1	6368.2	6887.2
Fertilizers.....	135.3	124.9	106.0	146.6	286.9	263.9	214.4	281.3
	106.5	101.5	101.7	113.2	233.6	227.2	232.3	222.8
<b>Products of petroleum and coal</b>								
Petroleum refining.....	125.2	125.1	126.2	119.0	214.4	224.6	221.0	196.3
Coke and byproducts.....	124.0	123.6	124.6	112.8	214.2	219.7	213.3	185.5
Paving materials.....	102.1	103.4	105.5	108.3	179.0	183.1	189.9	175.8
Roofing materials.....	69.5	68.6	69.0	81.6	137.6	143.3	142.0	140.1
	119.7	119.4	117.9	122.2	217.6	217.4	219.0	218.6
<b>Rubber products</b>								
Rubber tires and inner tubes.....	157.7	157.1	157.6	164.9	287.4	287.6	288.8	287.7
Rubber boots and shoes.....	171.4	170.6	170.6	170.1	298.2	297.5	300.8	289.0
Rubber goods, other.....	123.3	124.2	125.0	145.7	219.6	225.7	226.6	251.5
	135.9	135.2	136.0	146.8	250.6	250.6	248.3	256.7
<b>Miscellaneous industries</b>								
Instruments (professional and scientific), and fire-control equipment <sup>3</sup> .....	150.5	150.6	150.7	166.7	291.6	293.0	289.7	307.6
Photographic apparatus.....	535.1	548.7	556.6	643.2	1013.9	1032.1	1038.6	1198.6
Optical instruments and ophthalmic goods <sup>3</sup> .....	161.5	160.7	161.6	175.8	271.2	268.6	268.4	283.6
Pianos, organs, and parts.....	201.1	200.1	201.7	233.1	346.6	341.6	344.0	378.1
Games, toys, and dolls.....	93.1	92.9	89.1	141.6	177.4	174.7	180.4	236.4
Buttons.....	90.6	90.6	90.3	90.6	186.7	185.5	181.8	155.8
Fire extinguishers.....	85.5	83.5	82.2	92.6	166.5	168.2	167.0	173.9
	516.3	527.9	549.1	749.4	1047.1	1076.3	1126.3	1369.8

<sup>1</sup> Indexes for the major industry groups have been adjusted to final data for 1941 and preliminary data for the second quarter of 1942 made available by the Bureau of Employment Security of the Federal Security Agency. Indexes for individual industries have been adjusted to levels indicated by the 1939 Census of Manufactures, but not to Federal Security Agency data.

<sup>2</sup> Revisions have been made as follows in the indexes published for earlier months:

*Metal doors, sash, frames, molding, and trim.*—July 1944 employment index to 173.3; pay-roll index to 335.7.

*Sugar, beet.*—August 1944 employment index to 45.7; pay-roll index to 64.0.

<sup>3</sup> Comparable indexes from January 1939 are available upon request.

TABLE 4.—Estimated Number of Wage Earners in Selected Nonmanufacturing Industries

Industry	Estimated number of wage earners (in thousands)			
	November 1944	October 1944	September 1944	November 1943
Coal mining:				
Anthracite.....	66.1	66.7	67.5	68.7
Bituminous.....	340	342	348	368
Metal mining.....	69.9	70.9	72.7	91.6
Iron.....	24.8	25.5	26.4	30.3
Copper.....	22.1	22.3	22.5	30.6
Lead and zinc.....	14.6	14.7	15.0	18.7
Gold and silver.....	5.5	5.4	5.6	6.3
Miscellaneous.....	2.9	3.0	3.2	5.7
Telephone <sup>1</sup> .....	404	404	407	407
Telegraph <sup>2</sup> .....	45.8	46.0	46.0	47.4
Electric light and power <sup>3</sup> .....	201	201	202	206
Street railways and busses <sup>3</sup> .....	228	228	230	229
Hotels (year-round) <sup>4</sup> .....	356	353	352	351
Power laundries.....	243	244	241	247
Cleaning and dyeing.....	79.0	80.9	79.9	78.2
Class I steam railroads <sup>5</sup> .....	1,409	1,410	1,426	1,361
Water transportation <sup>6</sup> .....	140	135	136	93

<sup>1</sup> Data from January 1937 are available upon request. Salaried personnel are included.

<sup>2</sup> Data from January 1937 are available upon request. Excludes messengers, and approximately 6,000 employees of general and divisional headquarters, and of cable companies. Salaried personnel are included.

<sup>3</sup> Data include salaried personnel.

<sup>4</sup> Source: Interstate Commerce Commission. Data include salaried personnel.

<sup>5</sup> Based on estimates prepared by the U. S. Maritime Commission covering employment on active deep-sea American-flag steam and motor merchant vessels of 1,000 gross tons and over. Excludes vessels under bareboat charter to, or owned by, the Army or Navy.

TABLE 5.—Indexes of Employment and Pay Rolls in Selected Nonmanufacturing Industries

[1939 average=100]

Industry	Employment indexes				Pay-roll indexes			
	November 1944	October 1944	September 1944	November 1943	November 1944	October 1944	September 1944	November 1943
Coal mining:								
Anthracite.....	79.9	80.5	81.5	82.9	137.7	159.8	150.1	90.4
Bituminous.....	91.8	92.3	93.9	99.4	197.7	210.2	207.8	140.4
Metal mining.....	79.2	80.4	82.4	103.9	125.0	130.7	130.8	161.6
Iron.....	123.2	127.2	131.3	150.4	192.5	210.9	212.0	224.2
Copper.....	92.7	93.3	94.2	128.7	152.3	155.7	153.3	215.8
Lead and zinc.....	94.1	94.5	96.3	120.6	174.3	174.6	176.7	213.7
Gold and silver.....	22.0	22.0	22.7	25.5	28.0	29.7	28.7	32.3
Miscellaneous.....	72.5	74.9	81.1	142.8	119.3	125.6	136.7	241.6
Quarrying and nonmetallic mining.....	82.2	83.0	84.3	91.3	153.5	163.4	158.2	161.2
Crude-petroleum production <sup>1</sup> .....	82.1	82.7	83.0	80.9	130.9	120.6	135.4	124.7
Public utilities:								
Telephone <sup>2</sup> .....	127.1	127.1	128.2	128.2	156.3	159.0	159.4	150.9
Telegraph <sup>2</sup> .....	121.7	122.1	122.2	125.9	172.1	174.9	177.9	167.5
Electric light and power.....	82.1	82.1	82.6	84.5	114.2	114.3	115.6	112.2
Street railways and busses.....	117.7	117.7	118.6	118.4	170.1	168.3	168.9	161.9
Wholesale trade.....	96.8	96.0	95.0	95.5	140.0	140.4	136.4	131.9
Retail trade.....	103.2	99.7	96.6	104.2	134.2	132.0	128.0	126.8
Food <sup>3</sup> .....	109.0	108.8	106.3	108.2	141.9	141.6	139.2	133.2
General merchandise.....	127.4	116.7	109.2	130.4	155.9	147.1	138.9	150.0
Apparel.....	118.4	113.5	108.2	117.9	159.5	155.0	146.6	146.9
Furniture and housefurnishings.....	64.4	62.6	62.5	67.5	90.1	88.7	86.9	88.9
Automotive.....	67.2	66.2	65.7	64.8	99.3	99.1	96.8	90.1
Lumber and building materials.....	91.2	90.6	90.0	92.4	130.5	133.1	131.3	125.6
Hotels (year-round) <sup>4</sup> .....	110.3	109.6	109.0	108.8	164.6	161.9	159.0	148.8
Power laundries.....	107.6	108.0	106.8	109.4	160.7	161.3	159.5	150.3
Cleaning and dyeing.....	117.1	119.8	118.4	115.9	181.9	188.0	185.5	166.9
Class I steam railroads <sup>5</sup> .....	142.6	142.8	144.3	137.8	( <sup>6</sup> )	( <sup>6</sup> )	( <sup>6</sup> )	( <sup>6</sup> )
Water transportation <sup>7</sup> .....	267.7	257.2	258.7	176.9	651.9	599.0	602.6	394.2

<sup>1</sup> Does not include well drilling or rig building.

<sup>2</sup> Data from January 1937 are available upon request.

<sup>3</sup> Revisions have been made as follows in indexes previously published:

  Retail trade.—July 1944; food group, employment index to 105.9; pay-roll index to 143.0.

<sup>4</sup> Cash payments only; additional value of board, room, tips, not included.

<sup>5</sup> Source: Interstate Commerce Commission.

<sup>6</sup> Not available.

<sup>7</sup> Based on estimates prepared by the U. S. Maritime Commission covering employment on active deep-sea American-flag steam and motor merchant vessels of 1,000 gross tons and over. Excludes vessels under bareboat charter to, or owned by, the Army or Navy.

## AVERAGE EARNINGS AND HOURS

Average weekly earnings and hours and average hourly earnings for September, October, and November 1944, where available, are given in table 6 for both manufacturing and nonmanufacturing industries. The average weekly earnings for individual industries are computed by dividing the weekly pay rolls in the reporting establishments by the total number of full- and part-time employees reported. As not all reporting establishments supply information on man-hours, the average hours worked per week and average hourly earnings shown in that table are necessarily based on data furnished by a slightly smaller number of reporting firms. Because of variation in the size and composition of the reporting sample, the average hours per week, average hourly earnings, and average weekly earnings shown may not be strictly comparable from month to month. The sample, however, is believed to be sufficiently adequate in virtually all instances to indicate the general movement of earnings and hours over the period shown. The average weekly hours and hourly earnings for the manufacturing groups are weighted arithmetic means of the averages for the individual industries, estimated employment being used as weights for weekly hours and estimated aggregate hours as weights for hourly earnings. The average weekly earnings for these groups are computed by multiplying the average weekly hours by the corresponding average hourly earnings.

TABLE 6.—Earnings and Hours in Manufacturing and Nonmanufacturing Industries

## MANUFACTURING

Industry	Average weekly earnings <sup>1</sup>			Average weekly hours <sup>1</sup>			Average hourly earnings <sup>1</sup>		
	Nov. 1944	Oct. 1944	Sept. 1944	Nov. 1944	Oct. 1944	Sept. 1944	Nov. 1944	Oct. 1944	Sept. 1944
All manufacturing.....	\$46.80	\$46.94	\$46.24	45.3	45.5	44.8	Cents 103.3	Cents 103.1	Cents 103.2
Durable goods.....	53.00	53.19	52.18	46.7	47.1	46.1	113.5	112.9	113.2
Nondurable goods.....	37.94	37.98	37.66	43.3	43.3	43.0	87.7	87.8	87.6
<i>Durable goods</i>									
Iron and steel and their products.....	50.95	51.48	51.27	46.8	47.2	46.6	108.8	109.1	110.1
Blast furnaces, steel works, and rolling mills.....	54.55	55.46	55.43	46.6	47.1	46.3	117.0	117.6	119.8
Grey-iron and semisteel castings.....	51.52	52.62	52.41	47.3	47.9	47.7	109.6	109.9	110.0
Malleable-iron castings.....	51.88	52.76	52.16	48.5	49.3	48.7	107.9	107.8	107.6
Steel castings.....	52.46	53.09	52.64	46.7	47.4	46.6	112.4	112.1	113.0
Cast-iron pipe and fittings.....	42.64	42.56	41.49	47.4	47.9	46.8	89.6	88.9	88.6
Tin cans and other tinware.....	39.61	39.74	40.36	44.3	44.5	45.1	89.4	89.3	89.6
Wirework.....	50.31	50.50	51.10	47.3	47.6	47.8	106.5	106.2	107.0
Cutlery and edge tools.....	44.31	44.52	44.07	46.1	46.3	45.9	96.1	96.1	95.9
Tools (except edge tools, machine tools, files, and saws).....	45.69	45.39	45.27	46.5	46.6	46.2	98.5	97.6	98.1
Hardware.....	46.15	46.56	45.57	47.0	47.4	46.4	98.1	98.1	98.2
Plumbers' supplies.....	47.72	48.24	47.44	46.2	46.5	45.3	103.3	103.9	104.7
Stoves, oil burners, and heating equipment, not elsewhere classified.....	48.05	48.39	47.44	46.9	47.1	46.2	102.5	102.8	102.7
Steam and hot-water heating apparatus and steam fittings.....	49.97	49.59	48.38	48.1	48.0	47.0	104.0	103.2	102.8
Stamped and enameled ware and galvanizing.....	46.66	48.22	47.50	45.1	46.2	45.2	103.5	104.4	105.0
Fabricated structural and ornamental metalwork.....	54.54	54.30	54.70	48.3	48.1	48.1	112.0	112.9	113.8
Metal doors, sash, frames, molding, and trim.....	51.62	53.99	51.96	47.0	48.5	47.8	110.0	111.3	108.6
Bolts, nuts, washers, and rivets.....	48.88	49.26	48.46	46.9	47.2	46.0	104.2	104.5	105.4
Forgings, iron and steel.....	60.57	61.76	60.38	47.5	48.2	47.4	127.4	128.2	127.9
Screw-machine products and wood screws.....	50.25	50.59	50.51	48.0	48.4	48.1	104.6	104.5	105.0
Steel barrels, kegs, and drums.....	42.68	43.05	42.12	44.1	44.6	42.8	96.8	96.4	98.4
Firearms.....	60.70	59.00	60.38	46.8	45.4	45.8	129.6	120.8	131.8

See footnotes at end of table.



TABLE 6.—Earnings and Hours in Manufacturing and Nonmanufacturing Industries—Continued

## MANUFACTURING—Continued

Industry	Average weekly earnings <sup>1</sup>			Average weekly hours <sup>1</sup>			Average hourly earnings <sup>1</sup>		
	Nov. 1944	Oct. 1944	Sept. 1944	Nov. 1944	Oct. 1944	Sept. 1944	Nov. 1944	Oct. 1944	Sept. 1944
<i>Durable goods—Continued</i>									
Electrical machinery.....	\$48.49	\$48.46	\$48.55	46.3	46.4	46.2	Cents 104.7	Cents 104.5	Cents 105.1
Electrical equipment.....	50.81	51.06	51.28	46.5	46.7	46.6	109.4	109.4	110.1
Radios and phonographs.....	42.20	41.63	41.60	46.1	45.9	45.9	91.7	90.7	90.8
Communication equipment.....	45.99	45.94	45.68	45.7	45.6	44.9	100.1	100.1	101.0
Machinery, except electrical.....	54.69	55.47	54.47	48.2	48.8	47.9	113.4	113.7	113.6
Machinery and machine-shop products.....	53.84	54.37	53.10	48.2	48.7	47.6	111.6	111.6	111.6
Engines and turbines.....	59.81	61.04	58.79	48.5	48.8	47.3	123.5	125.6	124.6
Tractors.....	54.09	54.11	53.46	47.3	47.1	46.8	114.4	114.8	114.3
Agricultural machinery, excluding tractors.....	52.14	52.97	55.27	46.0	47.0	47.7	113.3	112.8	115.9
Machine tools.....	57.97	58.95	57.18	50.4	51.2	49.9	114.9	115.0	114.4
Machine-tool accessories.....	59.52	59.62	59.31	49.1	49.2	49.0	120.7	121.4	121.2
Textile machinery.....	48.75	49.25	47.85	48.2	49.4	48.6	101.1	99.7	98.5
Typewriters.....	49.14	49.55	48.09	49.5	49.7	48.7	99.2	99.6	98.7
Cash registers, adding and calculating machines.....	58.62	59.08	59.23	48.0	48.8	48.9	122.4	122.0	122.0
Washing machines, wringers, and driers, domestic.....	46.38	47.28	47.08	44.8	45.9	45.0	103.5	103.0	104.7
Sewing machines, domestic and industrial.....	56.88	56.53	56.35	51.4	51.1	51.2	111.7	111.6	111.5
Refrigerators and refrigeration equipment.....	51.15	52.85	50.47	46.1	47.0	45.4	111.1	112.3	111.2
Transportation equipment, except automobiles.....	63.28	62.53	60.80	47.8	48.1	46.9	132.4	130.1	129.7
Locomotives.....	64.94	66.52	63.55	48.3	49.4	47.2	134.4	134.7	134.5
Cars, electric and steam-railroad.....	53.57	54.80	50.88	45.7	47.0	44.5	116.7	116.7	114.3
Aircraft and parts, excluding aircraft engines.....	55.71	55.39	54.31	47.1	47.1	46.2	118.5	117.7	117.7
Aircraft engines.....	60.05	60.64	60.92	45.2	46.1	45.8	132.7	131.5	133.0
Shipbuilding and boatbuilding.....	69.13	67.69	65.23	48.8	49.1	47.6	141.5	137.9	137.0
Motorcycles, bicycles, and parts.....	50.79	51.30	52.91	47.7	48.6	49.2	106.4	105.5	107.6
Automobiles.....	58.19	57.85	55.98	45.5	45.6	43.5	128.0	127.0	128.7
Nonferrous metals and their products.....	49.61	50.01	48.99	47.0	47.3	46.3	105.7	105.9	105.8
Smelting and refining, primary, of non-ferrous metals.....	48.32	49.74	49.53	45.8	46.8	46.2	105.5	106.2	107.3
Alloying and rolling and drawing of non-ferrous metals, except aluminum.....	54.09	54.53	53.35	47.9	48.2	47.4	112.9	113.1	112.5
Clocks and watches.....	44.72	43.99	43.69	46.9	46.6	46.8	95.3	94.3	93.5
Jewelry (precious metals) and jeweler's findings.....	44.72	44.09	43.23	45.5	44.7	44.4	96.8	97.2	96.3
Silverware and plated ware.....	47.49	47.47	47.58	46.6	46.7	46.6	101.8	101.6	102.2
Lighting equipment.....	46.77	47.29	44.38	45.1	45.5	42.4	103.8	103.9	104.6
Aluminum manufactures.....	49.83	50.57	49.38	46.9	47.2	46.4	106.8	107.2	106.5
Lumber and timber basic products.....	34.06	36.16	34.82	43.1	44.8	43.3	79.1	80.8	80.3
Sawmills and logging camps.....	32.65	35.33	33.91	42.1	44.2	42.7	77.5	79.8	79.5
Planing and plywood mills.....	38.50	38.91	37.92	46.1	46.6	45.7	83.9	83.6	83.0
Furniture and finished lumber products.....	36.80	37.41	36.51	44.2	44.9	44.0	83.2	83.2	82.9
Furniture.....	37.38	37.56	36.83	44.1	44.7	43.7	85.2	84.8	84.7
Caskets and other morticians' goods.....	39.27	40.58	40.14	44.5	45.4	45.1	88.4	89.7	89.1
Wood preserving.....	33.96	35.84	34.30	43.0	45.4	43.4	79.1	78.9	79.0
Stone, clay, and glass products.....	40.07	40.81	39.52	44.0	44.7	43.4	91.0	91.2	91.0
Glass and glassware.....	40.36	41.26	39.64	42.6	43.4	41.3	95.0	95.4	96.1
Glass products made from purchased glass.....	35.23	35.85	35.48	43.7	44.1	44.1	80.4	81.0	80.3
Cement.....	43.60	44.72	42.89	46.6	47.5	45.3	93.6	94.2	94.6
Brick, tile, and terra cotta.....	34.04	35.08	33.39	42.1	43.1	41.5	80.3	80.7	79.8
Pottery and related products.....	36.88	37.11	36.10	42.1	42.2	41.4	88.9	88.9	88.5
Gypsum.....	46.03	46.20	44.11	49.6	49.4	47.6	92.8	93.6	92.6
Lime.....	38.01	40.65	38.32	48.6	50.7	48.1	78.4	80.2	79.5
Marble, granite, slate, and other products.....	39.48	40.42	38.72	43.2	44.4	43.3	90.9	90.6	90.1
Abrasives.....	48.76	48.66	48.15	47.7	48.0	48.1	102.2	101.3	100.2
Asbestos products.....	48.49	49.53	48.17	48.5	49.2	48.4	99.9	100.7	99.6
<i>Nondurable goods</i>									
Textile-mill products and other fiber manufactures.....	30.55	30.50	30.10	42.3	42.2	41.8	72.2	72.4	72.1
Cotton manufactures, except smallwares.....	27.51	27.37	27.26	42.6	42.3	43.2	64.6	64.7	64.6
Cotton smallwares.....	33.14	34.01	33.16	42.7	43.3	42.5	77.5	78.7	78.2
Silk and rayon goods.....	30.04	30.20	28.89	42.5	42.7	41.3	70.6	70.6	70.0

See footnotes at end of table.

TABLE 6.—Earnings and Hours in Manufacturing and Nonmanufacturing Industries—Continued

## MANUFACTURING—Continued

Industry	Average weekly earnings <sup>1</sup>			Average weekly hours <sup>1</sup>			Average hourly earnings <sup>1</sup>		
	Nov. 1944	Oct. 1944	Sept. 1944	Nov. 1944	Oct. 1944	Sept. 1944	Nov. 1944	Oct. 1944	Sept. 1944
<b>Nondurable goods—Continued</b>									
Textile-mill products and other fiber manufactures—Continued.									
Woolen and worsted manufactures, except dyeing and finishing.....	\$36.00	\$35.96	\$35.51	42.4	42.4	41.8	Cents 84.9	Cents 84.9	Cents 84.9
Hosiery.....	29.88	29.75	29.26	38.9	38.7	38.3	76.9	76.9	76.6
Knitted cloth.....	32.81	32.91	33.22	44.5	44.0	44.3	73.4	74.2	74.4
Knitted outerwear and knitted gloves.....	31.21	31.14	30.49	40.5	40.6	39.9	76.3	75.9	75.8
Knitted underwear.....	27.36	27.28	26.83	40.8	40.7	40.5	66.8	66.7	65.9
Dyeing and finishing textiles, including woolen and worsted.....	35.25	35.16	34.66	45.5	45.2	44.9	77.4	77.8	77.2
Carpets and rugs, wool.....	39.67	39.93	39.73	43.6	43.6	43.0	91.4	91.9	92.9
Hats, fur-felt.....	44.85	44.69	43.39	41.7	41.7	40.9	108.4	107.9	107.0
Jute goods, except felts.....	35.20	34.84	34.70	45.4	45.2	45.0	77.5	77.0	77.1
Cordage and twine.....	33.49	33.56	33.15	45.4	45.4	45.4	73.6	73.7	73.0
Apparel and other finished textile products.....	31.35	31.83	31.74	38.0	38.2	38.1	82.5	83.2	83.2
Men's clothing, not elsewhere classified.....	33.91	33.54	32.93	39.2	39.1	38.7	86.4	85.7	84.6
Shirts, collars, and nightwear.....	24.59	24.76	24.13	36.7	37.3	36.5	67.0	66.3	66.1
Underwear and neckwear, men's.....	27.03	27.02	26.35	36.9	37.1	36.6	73.1	72.7	72.0
Work shirts.....	21.58	21.50	21.17	37.4	37.4	37.0	55.8	55.5	55.2
Women's clothing, not elsewhere classified.....	37.67	39.12	39.82	36.4	36.9	37.2	100.1	102.7	103.5
Corsets and allied garments.....	30.73	30.71	29.87	41.3	41.1	39.8	74.7	74.8	75.2
Millinery.....	33.69	38.95	42.01	30.3	33.0	34.6	92.4	97.6	99.1
Handkerchiefs.....	24.83	24.66	23.65	38.1	39.0	37.7	65.2	63.3	62.9
Curtains, draperies, and bedspreads.....	27.11	26.43	25.83	37.7	37.2	36.4	71.2	69.9	70.4
Housefurnishings other than curtains, etc.....	34.07	33.82	32.21	42.2	41.9	41.5	79.6	79.4	77.7
Textile bags.....	29.98	29.70	29.87	42.4	42.0	42.3	70.7	71.0	70.9
Leather and leather products.....	33.71	34.06	34.02	41.2	41.6	41.5	81.8	81.9	82.0
Leather.....	43.01	43.11	43.55	45.4	45.5	45.7	95.2	94.8	95.2
Boot and shoe cut stock and findings.....	33.39	33.51	34.79	41.9	42.4	43.8	80.6	80.3	80.7
Boots and shoes.....	31.97	32.29	32.15	40.4	40.9	40.7	78.8	78.9	78.8
Leather gloves and mittens.....	30.34	30.63	31.30	37.9	38.1	38.3	80.5	80.8	82.4
Trunks and suitcases.....	33.47	34.19	32.65	40.6	41.1	40.2	80.9	81.8	80.0
Food.....	38.89	38.39	37.67	45.3	44.8	44.5	85.9	85.7	84.7
Slaughtering and meat packing.....	46.81	44.68	43.98	50.3	48.2	47.9	93.3	93.0	92.1
Butter.....	34.39	35.22	34.37	46.5	48.4	47.6	73.4	72.7	72.0
Condensed and evaporated milk.....	35.66	36.96	37.30	48.3	49.9	50.3	74.1	74.4	74.5
Ice cream.....	38.91	39.13	39.04	46.0	46.4	45.9	81.2	81.0	81.2
Flour.....	42.22	42.13	43.68	49.1	49.1	50.5	86.0	85.8	86.6
Cereal preparations.....	44.22	44.84	44.84	46.3	46.6	47.1	95.5	95.8	95.3
Baking.....	38.86	38.58	38.93	45.4	45.5	45.9	85.5	84.9	85.0
Sugar refining, cane.....	38.21	39.62	39.08	44.2	46.0	45.3	84.0	86.4	85.9
Sugar, beet <sup>2</sup> .....	35.84	33.01	33.34	45.2	38.8	34.1	79.3	85.1	97.7
Confectionery.....	31.17	31.09	31.06	42.0	42.2	42.1	74.3	73.7	73.9
Beverages, nonalcoholic.....	34.97	34.71	35.35	43.7	43.1	43.7	80.2	81.0	80.9
Malt liquors.....	50.96	51.59	52.15	45.0	45.7	46.3	113.2	113.2	112.8
Canning and preserving.....	30.49	31.67	29.98	39.7	40.3	39.4	77.3	79.0	76.4
Tobacco manufactures.....	32.46	31.53	31.43	44.1	43.3	43.4	73.6	72.8	72.4
Cigarettes.....	35.12	34.57	34.15	45.1	44.6	44.3	77.8	77.5	77.0
Cigars.....	30.29	28.89	29.12	43.2	42.2	42.7	70.2	68.7	68.5
Tobacco (chewing and smoking) and snuff.....	29.97	29.16	29.08	43.5	42.2	42.3	68.9	69.1	68.7
Paper and allied products.....	40.11	40.26	39.65	46.5	46.7	46.2	86.3	86.2	85.8
Paper and pulp.....	43.73	44.24	43.07	48.6	49.1	48.3	89.9	90.1	89.1
Envelopes.....	36.85	37.09	36.57	44.6	44.8	44.5	82.5	82.9	82.2
Paper bags.....	35.13	34.74	34.59	45.2	44.8	44.7	78.3	78.1	77.8
Paper boxes.....	35.59	35.28	35.31	44.0	43.9	43.9	81.1	80.5	80.6
Printing, publishing, and allied industries.....	45.52	45.06	45.60	41.2	40.9	41.4	110.5	110.2	110.1
Newspapers and periodicals.....	49.96	49.21	49.92	38.3	38.4	39.0	127.3	126.2	126.5
Printing, book and job.....	44.41	43.93	44.26	42.5	42.2	42.9	103.6	103.7	103.0
Lithographing.....	47.53	45.94	46.98	45.2	43.9	45.1	105.6	104.9	104.7
Chemicals and allied products.....	43.70	43.94	44.08	45.6	45.8	45.6	95.7	95.9	96.6
Paints, varnishes, and colors.....	46.23	46.48	46.06	47.1	47.5	47.2	97.9	98.0	97.8
Drugs, medicines, and insecticides.....	35.35	35.30	35.15	43.5	43.2	42.8	81.5	81.7	82.7
Soap.....	48.12	48.89	49.26	48.2	48.4	48.8	99.9	101.0	101.0
Rayon and allied products.....	39.14	39.11	39.22	43.2	43.0	43.0	90.8	90.9	91.2
Chemicals, not elsewhere classified.....	52.48	51.99	52.22	46.8	46.6	46.7	112.1	111.7	111.9

See footnotes at end of table.

TABLE 6.—*Earnings and Hours in Manufacturing and Nonmanufacturing Industries—Continued*

## MANUFACTURING—Continued

Industry	Average weekly earnings <sup>1</sup>			Average weekly hours <sup>1</sup>			Average hourly earnings <sup>1</sup>		
	Nov. 1944	Oct. 1944	Sept. 1944	Nov. 1944	Oct. 1944	Sept. 1944	Nov. 1944	Oct. 1944	Sept. 1944
<i>Nondurable goods—Continued</i>									
Chemicals and allied products—Continued.							<i>Cents</i>	<i>Cents</i>	<i>Cents</i>
Explosives and safety fuses.....	\$46.02	\$46.71	\$47.41	45.2	46.0	46.0	101.9	101.4	103.0
Ammunition, small-arms.....	45.29	46.05	45.08	46.3	47.1	46.2	97.8	97.7	97.6
Cottonseed oil.....	28.89	28.79	27.57	53.3	53.3	52.0	54.1	54.0	53.0
Fertilizers.....	30.83	31.59	32.52	43.7	44.3	45.3	70.5	71.3	71.7
Products of petroleum and coal.....									
Petroleum refining.....	55.67	57.04	55.70	46.9	47.9	46.4	118.7	119.0	120.2
Coke and byproducts.....	58.92	60.32	58.24	46.7	48.0	45.9	125.4	125.8	126.8
Roofing materials.....	48.08	48.51	49.29	46.6	47.1	46.5	103.1	102.9	106.1
	46.75	46.85	47.78	48.9	49.1	49.8	95.7	95.4	96.0
Rubber products.....									
Rubber tires and inner tubes.....	50.64	50.96	50.99	45.7	46.0	45.7	110.7	110.8	111.7
Rubber boots and shoes.....	58.50	58.78	59.33	46.4	46.4	46.5	125.9	126.3	127.3
Rubber goods, other.....	40.09	40.93	40.83	44.0	44.6	44.5	91.1	91.7	91.7
	43.29	43.43	42.77	45.3	45.8	44.8	95.1	95.0	95.7
Miscellaneous industries.....									
Instruments (professional and scientific), and fire-control equipment.....	44.38	44.53	44.00	45.8	46.0	45.2	96.9	96.8	97.3
Pianos, organs, and parts.....	55.03	54.61	54.18	48.5	48.6	48.2	113.6	112.5	112.6
	46.22	45.60	49.12	45.7	45.5	48.7	101.5	100.8	101.1

## NONMANUFACTURING

Industry	Average weekly earnings <sup>1</sup>			Average weekly hours <sup>1</sup>			Average hourly earnings <sup>1</sup>		
	Nov. 1944	Oct. 1944	Sept. 1944	Nov. 1944	Oct. 1944	Sept. 1944	Nov. 1944	Oct. 1944	Sept. 1944
Coal mining:							<i>Cents</i>	<i>Cents</i>	<i>Cents</i>
Anthracite.....	\$44.39	\$51.08	\$47.45	38.6	42.6	39.9	115.6	119.7	118.7
Bituminous.....	49.68	52.34	50.80	42.8	44.1	42.0	116.4	119.1	121.3
Metal mining.....	44.52	45.82	44.75	43.7	45.1	43.9	101.4	101.4	101.6
Quarrying and nonmetallic mining.....	40.60	42.47	40.51	46.8	48.9	46.8	87.2	88.0	87.1
Crude-petroleum production.....	53.81	52.92	55.04	45.9	44.9	45.9	114.6	115.6	117.2
Public utilities:									
Telephone.....	39.00	39.66	39.41	42.0	42.9	43.0	92.8	92.8	92.1
Telegraph.....	36.63	37.08	37.72	45.3	45.8	46.5	80.9	80.9	81.2
Electric light and power.....	48.89	48.90	49.17	43.4	43.1	43.7	112.0	112.7	112.0
Street railways and busses.....	48.68	48.02	48.01	50.8	50.2	50.2	94.6	94.5	94.2
Wholesale.....	42.91	43.57	42.61	43.0	43.2	42.9	99.6	100.8	99.4
Retail.....	26.20	26.94	27.09	39.4	40.4	40.4	73.6	74.1	73.6
Food.....	31.13	31.17	31.36	40.1	40.2	40.5	73.7	73.3	73.1
General merchandise.....	21.32	22.20	22.39	35.2	36.2	36.9	60.5	60.6	60.2
Apparel.....	28.44	28.66	28.24	36.1	37.0	37.1	79.0	78.2	77.4
Furniture and housefurnishings.....	38.39	38.88	37.93	44.0	44.4	43.6	88.1	88.2	87.3
Automotive.....	41.49	42.06	41.68	46.3	46.9	46.3	91.5	91.5	91.4
Lumber and building materials.....	37.07	38.25	37.74	42.6	43.6	43.5	88.2	88.9	88.3
Hotels (year-round).....	23.37	23.24	22.89	44.4	44.0	43.9	52.4	52.0	51.6
Power laundries.....	27.62	27.77	27.72	43.4	43.7	43.9	64.1	64.1	63.7
Cleaning and dyeing.....	31.75	31.77	31.70	43.5	43.8	44.3	74.4	74.4	73.6
Brokerage.....	55.78	55.10	54.25	(9)	(9)	(9)	(9)	(9)	(9)
Insurance.....	45.16	44.87	44.24	(9)	(9)	(9)	(9)	(9)	(9)
Private building construction.....	53.54	54.66	53.71	39.7	40.7	40.1	134.9	134.3	133.9

<sup>1</sup> These figures are based on reports from cooperating establishments covering both full- and part-time employees who worked during any part of one pay period ending nearest the 15th of the month. As not all reporting firms furnish man-hour data, average hours and average hourly earnings for individual industries are based on a slightly smaller sample than are weekly earnings. Data for the current and immediately preceding months are subject to revision.

<sup>2</sup> Revisions have been made as follows in data published for earlier months:

*Metal doors, sash, frames, molding and trim.*—July and August 1944 average weekly earnings to \$52.41 and \$50.80; average weekly hours to 48.1 and 47.5; average hourly earnings to 108.9 and 107.0 cents.

*Forgings, iron and steel.*—August 1944 average weekly earnings to \$57.55; average weekly hours to 46.8; April through August 1944 average hourly earnings to 123.6, 123.4, 124.0, 124.7, and 123.0 cents.

*Sugar, beet.*—August 1944 average weekly earnings to \$35.67; average weekly hours to 37.1.

*Retail trade total.*—July and August 1944 average weekly hours to 41.7 and 41.9; average hourly earnings to 73.2 cents and 73.0 cents.

*Food group.*—July and August 1944 average hourly earnings to 72.3 cents and 72.1 cents.

*General merchandise group.*—July 1944 average weekly earnings to \$22.75.

*Apparel group.*—August 1944 average weekly hours to 38.0; average hourly earnings to 75.9 cents.

*Lumber and building materials group.*—August 1944 average hourly earnings to 87.3 cents.

<sup>3</sup> Data from January 1937 are available upon request.

<sup>4</sup> Data from June 1943 are available upon request. Excludes messengers and approximately 6,000 employees of general and divisional headquarters and of cable companies.

<sup>5</sup> Cash payments only; additional value of board, room, tips, not included.

<sup>6</sup> Not available.



Civilian Labor Force, December 1944<sup>1</sup>

A SEASONAL decline of 960,000 persons between November and December 1944 reduced the civilian labor force to a total of 51,250,000 according to the Bureau of the Census sample Monthly Report on the Labor Force. The volume of employment decreased by the same amount, and unemployment remained at the low level of less than 700,000.

The net drop in employment between November and December took place entirely on farms, where the number of workers was reduced by 1,050,000 as autumn harvests were completed. The increased number of women who helped with the harvest resulted in an unusually large exodus of women from the farm labor force after the work was completed. However, the number of women in agriculture in December was still 310,000 above the December 1943 total.

Nonagricultural employment increased by 90,000 between November and December, largely reflecting the pre-Christmas expansion of employment in retail trade. This seasonal gain was smaller than that experienced in previous years. The level of nonagricultural employment—43,480,000—in December 1944 was 710,000 below that in December 1943. Employment of women in nonagricultural industries actually exceeded the 1943 total by 150,000, but employment of men was 860,000 below the 1943 total. During the year, however, the number of men in the armed forces showed a net increase of about 1,600,000.

<sup>1</sup> The following technical note has been issued by the Bureau of the Census in connection with the December 1944 sample survey: "The Monthly Report on the Labor Force is based upon monthly interviews conducted with a cross section of the civilian population in each area in which the survey is operated. A group of households selected for interview remains in the sample for about 6 months, and then a new group is selected, in order to avoid burdening the persons participating in the survey.

"When the sample is changed, differences in the characteristics of the two groups of households sometimes tend to obscure the month-to-month changes in the labor market. There is evidence that this sort of development occurred between November and December, when the selection of a new panel of MRLF households was completed. Specifically, the November-December increase in nonagricultural employment and the decrease in agricultural employment were probably somewhat larger than is indicated by the figures.

"Work is now in progress to develop a means of changing one-sixth of the households in the sample each month, and thus avoid the possibility of any significant obscuring of month-to-month changes at times when new households are selected for interview. It is expected that such a procedure will be put into operation in the near future."

*Civilian Labor Force in the United States, Classified by Employment Status and by Sex,  
November and December 1940-44<sup>1</sup>*

[Source: U. S. Department of Commerce, Bureau of the Census]

Item	Estimated number (in thousands) of persons 14 years of age and over:									
	1944		1943		1942		1941		1940	
	De- cem- ber	No- vem- ber	De- cem- ber	No- vem- ber	De- cem- ber	No- vem- ber	De- cem- ber	No- vem- ber	De- cem- ber	No- vem- ber
<b>Total civilian labor force</b> .....	51,250	52,210	51,900	52,550	53,630	54,080	53,680	53,820	52,740	53,090
Unemployment <sup>2</sup> .....	680	680	890	870	1,400	1,480	3,310	3,450	6,320	6,570
Employment.....	50,570	51,530	51,010	51,680	52,230	52,600	50,370	50,370	46,420	46,520
Nonagricultural.....	43,480	43,390	44,190	43,980	44,850	44,410	42,870	42,020	38,490	38,240
Agricultural.....	7,090	8,140	6,820	7,700	7,380	8,190	7,500	8,350	7,930	8,280
<b>Males</b>										
Civilian labor force.....	33,720	34,060	34,780	35,080	37,610	38,270	39,910	39,860	40,210	40,460
Unemployment <sup>2</sup> .....	400	350	560	440	810	900	2,390	2,390	4,820	4,910
Employment.....	33,320	33,710	34,220	34,640	36,800	37,370	37,520	37,470	35,390	35,550
Nonagricultural.....	27,220	27,260	28,080	28,130	30,130	30,340	30,530	30,110	27,830	27,620
Agricultural.....	6,100	6,450	6,140	6,510	6,670	7,030	6,990	7,360	7,560	7,930
<b>Females</b>										
Civilian labor force.....	17,530	18,150	17,120	17,470	16,020	15,810	13,770	13,960	12,530	12,630
Unemployment <sup>2</sup> .....	280	330	330	430	590	580	920	1,060	1,500	1,660
Employment.....	17,250	17,820	16,790	17,040	15,430	15,230	12,850	12,900	11,030	10,970
Nonagricultural.....	16,260	16,130	16,110	15,850	14,720	14,070	12,340	11,910	10,660	10,620
Agricultural.....	990	1,690	680	1,190	710	1,160	510	990	370	350

<sup>1</sup> Estimates for period prior to November 1943 revised April 24, 1944.

<sup>2</sup> All data exclude persons in institutions.

<sup>3</sup> Includes persons on public emergency projects prior to July 1943.

# Recent Publications of Labor Interest

February 1945

## Cooperative Movement

*Operations of consumers' cooperatives in 1943.* Washington 25, U. S. Bureau of Labor Statistics, 1944. 16 pp., map. (Bull. No. 796; reprinted from Monthly Labor Review, September and October 1944, with additional data.) 10 cents, Superintendent of Documents, Washington 25.

*Activities of credit unions in 1943.* Washington 25, U. S. Bureau of Labor Statistics, 1944. 8 pp. (Bull. No. 797; reprinted from Monthly Labor Review, October 1944, with additional data.) 5 cents, Superintendent of Documents, Washington 25.

*Farmers' cooperatives and the Federal income tax statutes.* By Kelsey B. Gardner. Washington 25, U. S. Department of Agriculture, Farm Credit Administration, Cooperative Research and Service Division, 1944. 14 pp.; processed. (Miscellaneous report No. 75.)

Analyzes and explains the income-tax legislation as it applies to farmers' marketing and purchasing cooperatives.

*Taxes and co-ops.* Minneapolis, Minn., Midland Cooperative Wholesale, 1944. 20 pp.

Explains the tax situation as regards cooperative associations, from the cooperative standpoint.

*Third annual statistical report, for the past fiscal year [1943-44], North Dakota cooperative statistics.* Bismarck, Department of Agriculture and Labor, North Dakota Division of Cooperatives, 1944. 19 pp. (Bull. No. 54.)

Statistics on operation, covering membership, capital, assets, business, net earnings, and patronage refunds, by counties and types of associations, for 572 reporting organizations (11 stores, 114 oil associations, 71 credit unions, 31 mutual insurance associations, 268 grain elevators, 28 creameries, 29 shipping associations, and 20 miscellaneous associations). Shareholders totaled 108,526, amount of business \$171,406,581, and net earnings \$6,327,312; the amount returned to patrons on their business with the associations totaled \$5,347,574. (For comparable data for 1942-43, see Monthly Labor Review, February 1944, p. 330.)

## Cost of Living and Food Consumption

*Report of the President's Committee on the Cost of Living.* [Washington 25, U. S. National War Labor Board], November 10, 1944. Various pages; mimeographed. Free.

*Food consumption levels in the United States, Canada, and the United Kingdom.* Report of a special joint committee set up by the Combined Food Board. Washington 25, U. S. Department of Agriculture, War Food Administration, 1944. 121 pp., charts. 20 cents, Superintendent of Documents, Washington 25.

Deals mainly with the levels of food supplies moving into civilian consumption in the three countries in 1943 and in pre-war periods (1934-38 for Great Britain and 1935-39 for Canada and the United States). One chapter makes the comparison in terms of nutrients. A similar report giving data for 1944 will be available shortly.

EDITOR'S NOTE.—Correspondence regarding the publications to which reference is made in this list should be addressed to the respective publishing agencies mentioned. Where data on prices were readily available, they have been shown with the title entries.



*Wartime food-consumption patterns and the cost of living.* By Armand Peter Ruderman. (In *Journal of Business of the University of Chicago*, Chicago 37, October 1944, Part 1, pp. 244-249. \$1.25.)

A study of the increased consumption of food in restaurants and similar institutions since 1939, and of the effects of the shift in consumption habits on expenditures for food.

*Budget standards for family agencies in New York City, 1944.* New York 10, New York Budget Council, 1944. 51 pp. 50 cents.

The budget standards presented in this publication have been formulated for the use of family-welfare agencies in arriving at decisions regarding the requirements of families with inadequate resources and in assisting such families on an individual budget basis.

*Recent findings on nutritional status of industrial workers.* By Dorothy G. Wiehl. (In *Milbank Memorial Fund Quarterly*, New York 5, October 1944, pp. 367-382; charts. 25 cents.)

Deals mainly with an investigation of diets and the nutritional status of swing-shift (4 p. m. to midnight) workers in an aircraft plant.

### *Economic and Social Problems*

*The economics of full employment.* Six studies in applied economics prepared at Oxford University Institute of Statistics. Oxford, England, Basil Blackwell, 1944. 213 pp. 12s. 6d. net.

The views of the authors are summarized in the statement that deficiency of demand lies at the root of unemployment, and that this deficiency can be made good either by income redistribution from savers to spenders or by deficit spending of the Government. They point out that full-employment policy must, in all probability, be accompanied by a number of controls, including controls of foreign trade, prices, and private enterprise.

*Is the inflation danger passed?* A radio discussion by J. Kenneth Galbraith and others. Chicago, 1944. 26 pp., charts. (University of Chicago round table, No. 341.)

*How to tell progress from reaction: Roads to industrial democracy.* By Many Gordon. New York, E. P. Dutton & Co., Inc., 1944. 320 pp. \$3.

Discusses the comparative benefits of private enterprise, partial socialization, and completely nationalized industry, in terms of individual liberty and economic gains to labor. The book surveys and evaluates the achievements of the various movements toward social and economic democracy, ranging all the way from outright government ownership in Russia to the experiments in socialization in Sweden, and in the United States as exemplified by the Post Office and TVA.

*Social-economic movements: An historical and comparative survey of socialism, communism, cooperation, utopianism; and other systems of reform and reconstruction.* By Harry W. Laidler. New York, Thomas Y. Crowell Co., 1944. 828 pp., bibliography, illus. \$5.

An attempt to give a comprehensive picture of all the important movements for fundamental change. Designed as a textbook and as a handbook on social reconstruction for the general reader.

*The organization of British industry.* London, S. W. 1, Federation of British Industries, Organization of Industry Committee, 1944. 23 pp.

Recommendations for industrial organization, both economic and commercial, for dealing with post-war problems. Stronger trade associations are urged to bring about the greatest efficiency in operation. An appendix, comprising 9 pages of the pamphlet, gives the historical background of the British trade-association movement.

*Wartime inflation in India and its social repercussions.* (In *International Labor Review*, Montreal, December 1944, pp. 736-750. 50 cents. Distributed in United States by Washington Branch of I. L. O.)

Draws on available data on cost of living, prices, and wages to show inflationary trends, and describes the Government's measures to deal with the situation.

## *Employment and Rehabilitation of Veterans*

*Employment of veterans.* Philadelphia, Chamber of Commerce and Board of Trade, 1944. 32 pp. (Industrial relations series No. 6.)

The first section of this pamphlet consists of suggested policies and procedures intended to serve as guides to management in the reemployment of discharged servicemen. The second section is a reprint of "The returning veteran," issued by the Public Charities Association of Pennsylvania, outlining the services and benefits available to veterans through public and private agencies.

*Recent State action providing benefits for returning veterans.* Chicago, Ill., Council of State Governments, May 1944. 30 pp.; mimeographed.

Summary, by State, of recent action taken to provide such benefits as hospital care, rehabilitation, loans or grants, and educational facilities and opportunities for returning veterans of World War II.

*Résumé of activities, Veterans Employment Service.* Washington 25, U. S. War Manpower Commission, June 1944. 7 pp.; processed.

*Returning servicemen: Conference leader's manual for foreman training.* Bristol, etc., Conn., General Motors Corporation, New Departure Division, 1944. 150 pp.; mimeographed.

Description of the veteran's counselor plan initiated by the General Motors Corporation to aid the returned serviceman in his readjustment to factory employment.

*Role of industrial medicine in the rehabilitation of veterans.* By J. F. Johnson, M. D. (In Journal of the American Medical Association, Chicago 10, December 23, 1944, pp. 1073-1077. 25 cents.)

Personal observations of a physician in an industry to which discharged veterans are returning for employment.

*What industry wants to know about veterans: I, The Nation's policy.* (In Factory Management and Maintenance, New York 18, December 1944, pp. 82-92; charts. 35 cents.)

This article, the first of three reports, has as its objectives providing the industrial employer with a forecast on which to base his plans and policies with respect to veterans, and furnishing information, which the employer can relate to his own program, on national programs and policies.

*The adjustment of the World War II veteran—a bibliography.* By Gordon Klopff. (In Occupations, the Vocational Guidance Journal, New York 27, January 1945, pp. 201-205. 50 cents.)

*Selected bibliography on problems of demobilization, adjustment, and rehabilitation of men and women from the armed forces.* Compiled by Eleanor Barteaux. [Ottawa, Canadian Library Council and Wartime Information Board?], 1944. 24 pp.; mimeographed.

## *Industrial Hygiene*

*Code of recommended practices for industrial housekeeping and sanitation.* Chicago 6, Ill., American Foundrymen's Association, Industrial Hygiene Codes Committee, 1944. 21 pp., floor plan. (Code No. 7.) \$1.50.

Influenced by the problems introduced by a large percentage of women workers, the code is designed for health and safety and the "promotion of good industrial relations" in the foundry industry.

*Health and safety for TVA employees.* Chattanooga, Tenn., Tennessee Valley Authority, Health and Safety Department, 1944. 30 pp., map, plans, illus.

*Report of a committee appointed to consider methods of suppression and removal of dust containing silica in the tile making and the electrical porcelain fittings sections of the pottery industry, [Great Britain].* London, Ministry of Labor and National Service, Factory Department, 1943. 19 pp., illus. 6d. net.

### Industrial Relations

*The area of collective bargaining.* By Leo Wolman. (In *Political Science Quarterly*, New York 27, December 1944, pp. 481-488. \$1.)

*The State and collective bargaining.* By H. A. Logan. (In *Canadian Journal of Economics and Political Science*, Toronto, November 1944, pp. 476-488. \$1.)

*The authority of the National War Labor Board over labor disputes.* By Leonard B. Boudin. (In *Michigan Law Review*, Ann Arbor, October 1944, pp. 329-382. \$1.)

Survey of the bases of authority of the National War Labor Board; types of cases under its jurisdiction; its relation to other agencies, particularly the National Labor Relations Board; and its accomplishments in the handling of labor disputes.

*The foreman in labor relations.* New York 18, American Management Association, 1944. 31 pp. (Personnel series No. 87.)

*Technologists' stake in the Wagner Act: The National Labor Relations Act in operation as it affects engineers, chemists, and architects.* By M. E. McIver, H. A. Wagner, M. P. McGirr. Chicago 3, Ill., American Association of Engineers, 1944. 260 pp. \$2.

Examination of the Wagner Act from the angle of its impact on technologists, to enable them to get from the act every possible advantage and avoid what they may regard as disadvantages.

*When the union enters.* By Benjamin M. Selekman. (In *Harvard Business Review*, New York 18, winter number 1945, Vol. XXIII, No. 2, pp. 129-143. \$1.50.)

Describes the processes and techniques involved in union organizing campaigns, strikes, representation elections; procedures in negotiation of contracts; and launching and operation of the agreement.

*Strikes and lockouts in Great Britain.* By Eugene L. Gomberg. (In *Quarterly Journal of Economics*, Cambridge, Mass., November 1944, pp. 92-106. \$1.25.)

Reviews wartime (1939-42) and peacetime (1927-38) experience.

### Medical Care and Sickness Insurance

*Content and administration of a medical-care program.* (In *American Journal of Public Health and the Nation's Health*, Albany 7, N. Y., December 1944, pp. 1217-1256. 50 cents.)

Papers on various aspects of the subject, presented by doctors and other experts at a meeting of the American Public Health Association in October 1944, together with recommendations of the Association.

*Need for medical-care insurance.* Washington 25, Federal Security Agency, Social Security Board, Bureau of Research and Statistics, 1944. 39 pp.; processed. (Bureau memorandum No. 57.)

Analyzes the need for medical care and the types and costs of existing medical-care services in the United States. Compulsory sickness insurance, according to the report, is necessary in order to protect the low-income groups, and should be part of the social-security system.

*Principles of a Nation-wide health program.* New York 19 (1790 Broadway), Committee on Research in Medical Economics, 1944. 34 pp. 10 cents.

A joint plan, by 29 well-known physicians, economists, and administrators, for a Nation-wide system of medical care through contributory health insurance.

*Sickness benefits and group purchase of medical care for industrial employees—a selected annotated bibliography.* By Dorothy Dahl. Princeton, N. J., Princeton University, Industrial Relations Section, October 1944. 28 pp. (Bibliographical series No. 76.) 30 cents.



## *Migrants and Migration*

*Migrant war workers in Newark.* Newark, N. J., Housing Authority of the City of Newark, 1944. 31 pp., illus.

Results of a survey undertaken to find out the housing needs of war workers who had migrated to Newark. In addition to the data on housing conditions, the report shows the origin, sex, age, color, family composition, and occupational skills of the migrants.

*The urban status of rural migrants.* By Howard W. Beers and Catherine Heflin. (In *Social Forces*, Baltimore, Md., October 1944, pp. 32-37. \$1.)

A study of rural migrants in Lexington, Ky., giving comparisons with the urban-reared population. The authors suggest the desirability of studies of this nature in other places.

*O Departamento Nacional de Imigração, [Brazil].* By Adalberto Mário Ribeiro. (In *Revista do Serviço Público*, Departamento Administrativo do Serviço Público, Rio de Janeiro, May 1943, pp. 53-72; map, chart, illus.)

Detailed account of the National Immigration Bureau of Brazil, showing its provisions for reception of aliens, operation of the National Immigration and Colonization Council, and present-day services to immigrants, especially rubber workers in the Amazon valley. Also gives statistics of immigration from 1884 to 1941, by country of origin.

## *Personnel Management*

*Employee counseling—a supplementary list of references.* Washington 25, U. S. Civil Service Commission, Library, November 1944. 13 pp.; processed.

*The handbook of industrial psychology.* By May Smith. New York 16, Philosophical Library, 1944. 304 pp. \$5.

Subjects discussed include fatigue in industry, the working environment, finding the job for the person and the person for the job, time and motion study, temperaments, and absenteeism.

*Personnel problems of the post-war transition period.* By Charles A. Myers. New York 17, Committee for Economic Development, 1944. 54 pp.

Study of plans made to meet the personnel problems of the post-war transition period, based on the experience in this field of 32 manufacturing and nonmanufacturing companies.

*Personnel and welfare officers in industry: What they do.* Canberra, Australia, Department of Labor and National Service, Industrial Welfare Division, 1944. 4 pp. (Leaflet No. 7.)

## *Population*

*Highlights of population shifts, based on ration book number 4 registration.* Washington 25, U. S. War Food Administration, Office of Distribution, 1944. 46 pp., maps, charts; processed.

*Estimates of population growth in California, 1940-50.* Sacramento 14, State Reconstruction and Reemployment Commission, 1944. 76 pp., maps, charts; mimeographed.

*A note on the trend of population and the labor problems of the U. S. S. R.* By Alexander Baykov. (In *Journal of the Royal Statistical Society*, London, W. C. 2, Vol. 106, Part 4, 1943 (issued in September 1944), pp. 349-359; map. 10s.).

Analysis of population growth in the Soviet Union from 1914, with special attention to the 13 years between the 1926 and 1939 censuses. Labor supply and demand and influences that will affect the post-war labor situation are discussed.

### Post-War Reconstruction

*Problems of mobilization and reconversion.* First report to the President, the Senate and the House of Representatives, by the Director of War Mobilization and Reconversion. Washington 25, U. S. Office of War Mobilization and Reconversion, January 1, 1945. 58 pp., charts.

It is stated that an understanding of the problems of mobilization for war and of the later transition from war to peace requires a review of major accomplishments during the war and a comparison of these accomplishments with those of normal times. Much of the report is therefore devoted to summaries of this nature. The discussion of the wartime record, and of problems of continued mobilization and of reconversion, relates to major fields of the domestic economy and includes a section on foreign economic operations.

*Fruits of victory—poverty or plenty.* Detroit 2, Mich., International Union, United Automobile, Aircraft and Agricultural Implement Workers of America, UAW-CIO, Education Department, 1944. 58 pp. (Publication No. 36.) 15 cents.

*Mustering out war workers.* (In *Modern Industry*, New York, December 15, 1944, pp. 49, 50, et seq. 35 cents.)

Survey of the problems facing industry in the reconversion period after "V-E day", with suggestions looking toward their solution and information on lay-off policies that are being adopted by some companies.

*Post-war economic society: Addresses delivered at the third series of conferences of the Institute on Post-War Reconstruction.* Edited by Arnold J. Zurcher and Richmond Page. New York, New York University, Institute on Post-War Reconstruction, 1944. 306 pp. \$3.50.

Topics covered by the addresses included cooperative societies, organized labor, education problems, outlook for the serviceman, the cartel problem, group medical practice, and population shifts in the United States.

*Problems of reemployment and retraining of manpower during the transition from war to peace—a selected, annotated bibliography.* Princeton, N. J., Princeton University, Industrial Relations Section, 1944. 26 pp.; mimeographed. (Bibliographical series, No. 75.)

*The readjustment of manpower in industry during the transition from war to peace—an analysis of policies and programs.* By Helen Baker. Princeton, N. J., Princeton University, Industrial Relations Section, 1944. 112 pp. (Research report series, No. 71.) \$1.50.

Deals with the plans and programs of a group of companies reporting through personal interviews or correspondence in 17 States and 14 principal industries. The main topics discussed are the organization and extent of company planning, transitional adjustments in the present labor force, and the employment and re-employment of veterans, including the handicapped.

*Red Wing looks ahead: The economic impact of the war on a Minnesota community, with a forecast of post-war conditions.* By Roland S. Vaile. Minneapolis, University of Minnesota Press, 1944. 29 pp. (Community basis for post-war planning, No. 1.) 50 cents.

The first number of a series described as having been designed to provide the citizens of Minnesota with information of use in making individual and community plans for the post-war period. The series deals primarily with problems of readjustment of a local character, to be solved by the community, and the procedure followed is to suggest methods for analyzing the problems involved and for aiding in the compilation of significant factual materials.

*The transformation of war plant to peace needs [in Australia].* By J. S. Storey. Melbourne, Melbourne University Press, in association with Oxford University Press, 1944. 29 pp. (Realities of reconstruction, No. 6.) 6d. (25 cents, Steckert & Co., New York 3.)

*Report of the Cotton Board Committee to inquire into Post-War Problems, submitted to the president of the Board of Trade, [Great Britain], January 1944.* [London?], 1944. 55 pp. 2s.

### Production

*Measurement of industrial production since 1939.* By Frank R. Garfield. (In *Journal of the American Statistical Association*, Washington 6, December 1944, pp. 439-454; charts. \$1.50.)

A description of the Federal Reserve Board index of industrial production, with definitions of what the index measures and an explanation of how the measurement is made.

*The War Production Board administrative policies and procedures.* By John Lord O'Brian and Manly Fleischmann. (In *George Washington Law Review*, Washington 6, December 1944, pp. 1-60. (\$1.)

Summary of the steps taken by the War Production Board to control and regulate American industry for purposes of war production, and the bases of authority under which the Board operates.

*Fifth census of production [in Great Britain], 1935—final summary tables.* [London], Board of Trade, Statistics Department, 1944?. 52 pp.

Shows employment, output, and total wages paid.

*Outwork.* London, Ministry of Production, 1944. 23 pp., illus.

Discusses conditions under which the outwork method may be profitably utilized, and describes various types of outwork (work done outside the factory) in Great Britain.

### Social Security

*Designing a company pension plan.* New York 17, National Industrial Conference Board, Inc., 1944. 16 pp. (Studies in personnel policy, No. 67.)

Three round-table papers given at a meeting of the National Industrial Conference Board in September 1944: Approach to pension planning; Trends in company pension plans; Federal regulation of pension plans.

*Dismissal pay provisions in union agreements.* Washington 25, U. S. Bureau of Labor Statistics, October 1944. 18 pp.; mimeographed. Free.

The major part of this report was published in the *Monthly Labor Review* for January 1945 (pp. 47-57).

*Family allowances—an instalment of social security.* By George F. Davidson. (In *Canadian Welfare*, Canadian Welfare Council, Ottawa, July 15, September 1, and October 15, 1944, pp. 2-6, 6-11, and 11-17, respectively. 25 cents each.)

Part I deals with the historical background of Canadian discussions of family allowances and gives an analysis of the bill for these subsidies; Part II is concerned with the social implications of family allowances; and Part III takes up administrative and other aspects of such allowances.

*Public-assistance goals: Recommendations of the Social Security Board.* (In *Social Security Bulletin*, Federal Security Agency, Social Security Board, Washington 25, November 1944, pp. 2-8. 20 cents, Superintendent of Documents, Washington 25.)

Recommendations for improvement of State public-assistance legislation, in the 1945 legislative sessions, sent by the Federal Social Security Board to State public-assistance agencies.

*Financing relief in Pennsylvania since 1930.* By Randall S. Stout. State College, Pa., Pennsylvania State College, Bureau of Business Research, 1944. 21 pp.; mimeographed. (Bull. No. 11.)

Review of the volume of unemployment and special types of public aid in Pennsylvania, Federal and State expenditures for public relief, methods used by the State to finance its relief program, and number of persons receiving the different types of assistance.

*Report of the New Zealand Social Security Department for the 12 months ended March 31, 1944.* Wellington, 1944. 4 pp.

Summarizes new social-security legislation in New Zealand and operations under the social-security system.



*Poland's social progress.* (In Polish Facts and Figures, Polish Government Information Center, New York 22, November 25, 1944, pp. 1-32; map, illus. 10 cents.)

Account of the development of social security in Poland during the 20 years after 1918, with details on protective labor legislation and the social-insurance system. There is also a brief discussion of labor conditions under German occupation.

### *Wages and Hours of Labor*

*Earnings in cotton-goods manufacture during the war years.* Washington 25, U. S. Bureau of Labor Statistics, 1944. 13 pp. (Bull. No. 798; reprinted from Monthly Labor Review, October 1944.) 5 cents, Superintendent of Documents, Washington 25.

*Wages in department and clothing stores, large cities, spring and summer 1943.* Washington 25, U. S. Bureau of Labor Statistics, 1944. 12 pp. (Bull. No. 801.) 5 cents, Superintendent of Documents, Washington 25.

*Comparative analysis of the rates of earnings and conditions of work of the merchant marine personnel on foreign flag and United States vessels.* Washington 25, U. S. War Shipping Administration, Labor Agreements Division, November 15, 1944. 39 pp. and 2 folded tables; mimeographed.

The data were largely compiled from collective-bargaining agreements in effect in the 16 countries included in the study. Information is given regarding both "officers" and "ratings", corresponding to licensed and unlicensed personnel, respectively. The rates paid are given in United States currency, on the basis of international exchange rates. It is stated that the comparisons should not be viewed as indications of the real value of wages in the different countries.

*Municipal salaries in Massachusetts, 1943.* Boston, Massachusetts Federation of Taxpayers Associations, 1944. 32 pp.

Statistics of average annual salaries in selected positions, all cities, 1940, 1942, 1943, and for individual cities, 1943.

*Annual salary ordinance, 1944-45, and salary standardization ordinance, City and County of San Francisco.* San Francisco, Board of Supervisors, 1944. 105 pp.

Text of annual salary ordinance, for year ending June 30, 1945, with list of jobs and regular hours at each job, and compensation schedules.

*Cost-of-living salary adjustment plans for municipal employees (including model charter provisions).* By J. M. Leonard and Rosina Mohaupt. Detroit 26, Mich., Detroit Bureau of Governmental Research, 1944. 42 pp., chart. (Report No. 168.) 50 cents.

*National War Labor Board wage stabilization general orders and interpretations under Executive Order 9250, Executive Order 9328, and the regulations of the Director of Economic Stabilization.* Washington 25, U. S. National War Labor Board, Division of Public Information, November 1944. 88 pp.

Contains general orders Nos. 1 (October 7, 1942) to 38 (October 23, 1944) relating to wage and salary rates, wage increases, and other pertinent matters that come within the scope of the wage-stabilization program, together with interpretations of and questions and answers pertaining to these general orders.

*Studies of the effects of long working hours.* By Max D. Kossoris. Washington 25, U. S. Bureau of Labor Statistics, 1944. Part 1, 54 pp., charts; Part 2, 40 pp., charts. (Bulls. Nos. 791 and 791-A.) 10 cents each, Superintendent of Documents, Washington 25.

*Wages in the primary textiles industry in Canada, 1943.* Ottawa, Department of Labor, 1944. 19 pp. (Supplement to Labor Gazette, October 1944.)

Statistics of wages per hour and working hours per week, by sex and industry branch, for Canada as a whole and for specified Provinces, November 1943.

*Daily wages of unskilled Chinese laborers, 1807-1902.* By Sidney D. Gamble. (In Far Eastern Quarterly, New York, November 1943, pp. 41-73; charts. \$1.)

*Report of the Mental Nurses Subcommittee [of the Nurses Salaries Committee, Ministry of Health, Great Britain].* London, 1944. 45 pp. (Cmd. 6542.) 9d. net.

Presents a detailed scale of pay, recommended by the subcommittee, for different categories of attendants in mental hospitals of varying size.

### General Reports

*Sixty-first annual report of the United States Civil Service Commission, for the fiscal year ended June 30, 1944.* Washington 25, 1944. 24 pp. 10 cents, Superintendent of Documents, Washington 25.

This report does not summarize the work of the Commission for the year ending June 30, 1944, but presents a series of recommendations, which the Commission believes should be put into effect at once, concerning pay of Federal Government employees, selection and placement of new employees, reemployment of veterans, utilization of present employees, and other matters. Appended to the report are various Executive orders, issued during the fiscal year, on annual and sick leave and other matters pertaining to the Federal service.

*Wartime development of the aircraft industry.* Washington 25, U. S. Bureau of Labor Statistics, 1944. 23 pp. (Bull. No. 800.) 10 cents, Superintendent of Documents, Washington 25.

Covers employment trends and distribution, labor turnover, absenteeism, hours and earnings, and production trends.

*Ex parte Milligan v. The five companies: Martial law in Hawaii.* By John P. Frank. (In Columbia Law Review, New York, September 1944, pp. 639-668. 85 cents.)

Contains an account of the situation of labor under the control of the military authorities in Hawaii.

*Labor problems of Africa.* By John A. Noon. Philadelphia, University of Pennsylvania Press, 1944. 144 pp., bibliography. (African handbooks, 6.) \$1.50.

The conclusion is reached that Africa possesses the manpower to meet existing requirements and will be able, with wise planning, to provide a labor force for new industries if they are of the proper type and suitably located.

*Anuario comercio interior y comunicaciones.* Santiago de Chile, Dirección General de Estadística, 1944. 162 pp., charts.

Includes data on wholesale and retail prices in Chile, cost-of-living indexes for Santiago, and food-cost indexes for different Chilean cities, for 1941 and earlier years.

*Anuario estadístico de los Estados Unidos Mexicanos, 1941.* México, D. F., Secretaría de la Economía Nacional, Dirección General de Estadística, 1943. 1071 pp.

Matters of labor interest covered in this statistical annual for Mexico include occupational distribution of the population, censuses of 1921 and 1930; and, for various years up to 1941, labor organizations, industrial disputes, unemployment, industrial accidents, occupational diseases, average weekly hours of work, wages in various industries, wholesale and retail prices, cost of living, and agricultural credit societies.

*Growth of industry and aviation in Mexico, 1929-42.* (In Commercial Pan America, Pan American Union, Washington 6, July-August 1944, pp. 1-98; bibliography, maps, charts.)

A chapter on industrial manpower and wages gives statistics of employment and average annual wages in certain Mexican manufacturing industries, 1940-42; a comparison of daily wages paid in 1902 and minimum daily wages fixed for 1942-43; and statistics of industrial accidents, by years, 1938-41.

*Extracto estadístico del Peru, 1942.* Lima, Ministerio de Hacienda y Comercio, Dirección Nacional de Estadística, 1944. cxxv, 600 pp., charts.

Statistical compendium of Peru for 1942, with comparisons covering earlier years, with respect to low-cost restaurants; social insurance; employment, hours of work, and wages in various industries; unemployment; industrial accidents; indexes of cost of living, retail prices, and wholesale prices (down to 1943); production; and other matters.

*Welfare in the British colonies.* By L. P. Mair. London (and New York 22, 1 East 54th Street), Royal Institute of International Affairs, 1944. 115 pp. 5s.

Gives the background of social policy and covers education, labor, health, and social welfare.

*The Tasmanian economy in 1943-44.* Hobart, State Finance Committee, 1944. 30 pp., charts. (Studies of the Tasmanian economy, No. 20.)

Coverage is broad, extending to such subjects as national income, population, wages, prices, and reconstruction.